

<210> 4376
 <211> 469
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-036-Q1-E1-C11

<400> 4376

```

gggtgcccc acgcgtccg catctatgct cgttcaacat ggcttttctt atacaggaaa 60
agatatttta tattcaggaa tgacaggaga gccattacaa gcttatgtat ttatgggtcc 120
catttattat cagaaactaa agcatatggt aaaagataaa atgcacgcca gagccagagg 180
tcctcgtgcc gtactcacia gacaacctac ggaaggccgt tctcgagatg gtgggtcttcg 240
attangagaa atggaaagag attgtttgat aggatatggt gcttcgatgc tcattatgga 300
aagattgatg cacagtagtg atgcttttat tgctcatgtt tgtagacaat gtggtttgat 360
tgtttccaaa gattgggtgc caacctgtgc aagtgtctta tatataaggc cattgaaaat 420
tccttatgct tgcaagttgt tgtttcaaga gttgcaaagt atgaatatt 469

```

<210> 4377
 <211> 461
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-036-Q1-E1-C12

<400> 4377

```

taccgatccg taattcgcg gtgcgcccc cgcgtccgcc aacgcgtccg ggaaatgaag 60
tttgtactcg tttctggcg ggttatctt ggtattggaa agggctctac tgcttcatct 120
ttgggagttt tgctaaagtc gtgtgggttg agagtgcaca gtatcaagat tgatccctac 180
atcaatgtcg acgctggtac aatgtcacct tttgaacatg gtgaagtatg gtgctcgacg 240
ttgtttgtac aagaacttca tttatctaaa ggtctttgta ctggatgacg gcggcgatgt 300
tgatttggat ctcggcaact acgagagggt tctggacatt aatcttacga gtgaaagcaa 360
tataaccacc ggaaaaattt atcaacaagt tattgaaaaa gaaagacaag gactgtatct 420
tggaagacg gttcaagtca ttccacatgt aacggacgct a 461

```

<210> 4378
 <211> 453
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-036-Q1-E1-D11

<400> 4378

```
ccacgcgtcc gccaacgcgt ccgcccacgc gtccgaaatg tctcacgcct tggctgtttt 60
cttatcctgg acaacaactt tttaaaaacg agattatttt taccaaatat aagcattttt 120
cagttgcttc tttaaaggat ctgagtgggtg ttgtgcagag ttgcaatagt gttcgtgcga 180
gcaaggcaaa tgtgtcatta ctctcgtgtt ccaagtcaag aaaaccaa at ggaaagcgac 240
tgttgcacaa cgcagttgct gcttcgagtg ttgcctcgtt tggagatgct tggaacgttg 300
ttactctcac ttatgcaagt gtcattgcag ctggaggggt gactggttat gtaaggactc 360
gaagtgttcc ttctctgtta tcaggtgtcc tatccgcttt attacttttc gtttcttggt 420
atcaaaattc gctccactt gctgtgcag tat 453
```

<210> 4379
 <211> 461
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-036-Q1-E1-E11

<400> 4379

```
ccacgcgtcc gccaacgcgt ccgcccacgc gtccgcccac gcgtccgctc atttaagtaa 60
tggagagagt ttggattttt ccgtcattca aaagaacttg ttaa atgctt atgttcgaaa 120
gaaaacacat attcaacgct cagaatggta tcatgctcgg gtgcataaga ttattcattg 180
gtcaaaagaa cagatgccaa gacttttcac ctctgcagtg gatctcagtg acatttattc 240
agagtttgta gagttggaaa acccctttgt tatcgcat ttt ggaatttctg ctgtacaaaa 300
agttcatcag agtattcgcc tacttacaaa agtggttattt gaacgtgtgg actgtagttt 360
agtgagtgtg gttcacccaa atccagagac agtgatagca ctgtatcgtg tatatggcaa 420
aggccgtttc ttgggtggaa gagtgcagta tctgagtaga a 461
```

<210> 4380
 <211> 426

<212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-036-Q1-E1-E2

<400> 4380

acgcgtccga ggaaatagtc atccacgaca accattggat gcagccgatt cgtggagaca 60
 tgaactgtga tagtggagat cttttgtgaa tggaaaagat gacaaaataa ctcaatcaga 120
 ggctcaattg tgtcggttcc aagacctgat atgtctgggt gtagtttaac aggcaaagac 180
 aagtcgggtc caggcgaaaa catggtttga tgaacaaact gtgagactat gacagttggt 240
 attcgacagt caatccacag gaacacgaga gtatctggac actcgtatca tgtccctcga 300
 ttaagacagc cgttgagatg acattaactc gactgatgat agtagtcgac agagagatga 360
 tacagaaaat cgatgtgcgg tctacatgca tgactcgttt aatcgttttg tgaaacgaga 420
 aaatga 426

<210> 4381
 <211> 383
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-036-Q1-E1-E8

<400> 4381

gacccacgca tccaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaagggg ggcgcccta 120
 caggttgctc cttcttttac tcgtgctggc ggcttcacgc ctcttctcgt cgttccttat 180
 tttcatctct tcggccgtcg ttttataacc tcttaattgc gattcccctg ccgtcgttta 240
 ccttattcgc cttggggaaa atcccccttt ttccaatttg cgtcttattg acgaggaccc 300
 cccctttggt ccttcccaaa atttccttac cccattggc gattggcatc cccctgttt 360
 cgtcgcctta atcgccgcgg gtg 383

<210> 4382
 <211> 410
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-036-Q1-E1-F12

<400> 4382

ccacgcgtcc gacaagcgtt cagaagaatt tgttgaagag agggccaaga tgggtgcactc 60
tatggaagta aagaagaata agtttataga acagtgggct gcctatagag aaaactctga 120
atatttatac aaatggacac caaagcgcgt aataggaatc ggtcttcttg tgggcgtgat 180
tccttattac ttgtatcgct acattgtgta cagtgtggag aatcagtacc caaactatgg 240
agctgcagag tatggtttac taggaggttc tcctccaaag tactcgagtc aagaagatga 300
aaataagtaa cttgacaacg tcaccaacga cctaaagttg ctccgttggc gtattatatg 360
aaaactttat agacaagttt atttttttcc ctaaaaaaaaa aaaaagatca 410

<210> 4383

<211> 493

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-036-Q1-E1-F9

<400> 4383

taccgatccg tacttcgcgg gtgccccac gcgtccgcaa acagaaaagg aagtaaaagg 60
agggaatgaa ggggaagttat ggcaaaaaca cgtgccagca gcagcggtaa aacgtgtgta 120
gcaagcgtag agcagaagaa ctgggtgtaa aggtcgagta gtagagtaag tgtaaaaggg 180
aaaggaaagg agagaaagag gaaagggatg aaatgcagag atctctagag aaaggcaaga 240
aagaaaagaa aggaagacac agtaaatgag gcgagaaagc ataggaagtg aaacggatta 300
ggaacccgtg tagtctatgc agtaaaagaa agaatgagta agaaaaaagg gagtcattcc 360
accaggggag taaaggcgca agaaagaaac ccaaagcaat tgacgggaat cggaaaaaag 420
gggtggatca cgtaaattaa tccgataaac cgagaacctt acctctccaa gaaggtgttg 480
cacggtgtc gaa 493

<210> 4384

<211> 483

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-036-Q1-E1-G11

<400> 4384

taccgatccg taattcncgg gtggcccccac gcgtccgccac acgcgtccgc ccacgcgtcc 60

ggaatgacct ttgaatcgcc tttttacaag acaaagcttt cattttaaag caactcgttg 120

tttctgcaaa cttcttactt tgtggcattc aacgaacgat gaagttccag tacgttagtc 180

ttttattggc tctcttatgc gtaggttctg ctctggctgc tgaattggca cctggaattg 240

cggaaaaacc ggtagagaga ggatatgagg aaccctgctg taccgaatat tgttattggg 300

aagaaatag tatcacaccc acacccacac ctacaccaac ctactattac tattattacg 360

caagaaatgc aaaacaggaa aatgtcgaga gaagcgtaga aaagagtatc tcttccgcag 420

aaaaatctga tgcggttcga gggatattttc ccacgtacta ctattatgag actcctaaca 480

tat 483

<210> 4385

<211> 384

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-036-Q1-E1-G4

<400> 4385

acgcgtccaa ccaaacgtcc gcttacctct ccaaaaaggt gttccacggt tgtcaaaaaa 60

acttccgtga aattaaaaaa acttacaaaa aaccctaatta aggaaaaaaa ggcattttaa 120

gggcggccca aaaaaggaaa gggcttaaaa cttaatacaa attaggaaaa aaaaaaaaaa 180

aacctaaaaa ggaggtaaaa aaaaagtaaa aggacaagaa gacgtacgga attcacgaag 240

aangagcgtg aatgaangaa gaatcccaag taatcganga agaaaaagct tcggtgaaag 300

cgtgaacgga ttttgtacac actgcccgtc aagttctgga agtgtgctac gaataagcag 360

gagaagtaga agagagtang aaaa 384

<210> 4386

<211> 426

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-036-Q1-E1-G6

<400> 4386

ccgggtcgac ccacgcaccc aaagaaaaga gagagaagaa agaaaagaag agaaaagccg 60
tactgaagac cgacacaggt actcgaggag aaaggagacc caaattaagg tgagagaatg 120
gacgataagg aactaggcaa aaggatatgg tatctgcggt agaacatatg aaagaagcag 180
caccgactgt ttagcaaaaa cacagcactc tgcagaaaag agaaaatgta aagtatagag 240
tgtgcggcct gccaaatagt agagaagaaa tcgatgaaag tgaaagcgag taaaagatga 300
ggtatagaga atggcgggtcc taactgtaag gatccaaagg tagcgaagta aatagacgtt 360
tgaaaggcgt ccagtatgaa aggagaaaacg agtgtagcac tgtctagtcg tccaactcag 420
cgaaac 426

<210> 4387
<211> 469
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-036-Q1-E1-G9
<400> 4387

gggtcgcccc acgcgtccgc gaaaatggac cactgtttgt ggttttcttg ctcggtttct 60
ttgattttct gtactgtctt tgtaggtttg ttatatctac catggcttta cggagaccga 120
aacgattaca aaataataaa aaggaggagt tttgctatgc tcgtccttgc ggcactatgc 180
tattgtgtta cttacgcaat tgtcataccc cactcgtttt tactaattga aaggatggag 240
aagccccgca gtatatctct gtccactaca tttgtcttct catttttacc tgtcttgctt 300
ttgtttcttg gaccttgcac tttgaacatt attgattttg caacgtatat ggcgacggc 360
ttgtccgctg aagaaagctt aaagctgtcg tttcctttgt tagggcagag ttcttgata 420
attttccgca accttatggg tgctccggtg tccgaagagt tgggtgttc 469

<210> 4388
<211> 492
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-036-Q1-E1-H11
<400> 4388

taccggaccg tacttcgagg gtggccccac gcgtccgcca acgcgtccgc ccacgcgtcc 60

gcccacgcgt cccatcctgc catcaatggg ggtgatatct acaactctcc tatgatacga 120
gagaaacaaa tacttctgtt actcgggaaca atgccaaactt tggcagcttt tatttatcgg 180
cacaagggtg gacgtccatt caactatcca gcttatgggtg gaagtcgac ctataccgaa 240
aactttatgt acatgttgga tagtatggat gatccttctt atcgtcacaa ttcaaccctt 300
gtgaaagctt tggatacttt gtttggtttg catgcggatc acgagttgaa ttgctctact 360
gcggcagttc gtcattctac aagtagtggg tagatgttt ttactgcatt ttctggggct 420
gcaggtgcct tatatggacc acttcatgga ggagccaatg aagccgtttt gcgaatgttg 480
gaaaagattg gt 492

<210> 4389
<211> 149
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-036-Q1-E1-H3

<400> 4389
caagccttcg aacaagcgtc cggccaagcc tccggccaag cgtccgggct aattccaaat 60
tgccaacggg cgctccaaaa gattcaagcc taagtctgcc ttcaagccaa gttaaaactc 120
ctccaaaatg gcaacaaaaa tcaatttaa 149

<210> 4390
<211> 446
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-036-Q1-E1-H7

<400> 4390
attcncgggc cgacccacgc gatccacaca cacttggttc ttccaaacat gtttcatttc 60
cttctttctta ttagtcgtca aggaaagggt cgtctagcca agtggttgga accctactcc 120
cagaaagaac gaacgaaaat ctcccaagag ttggcttccc tcttaaccgc gaggtccaat 180
aaaatgtgca actttataga atggagagac ttgaaagttg ttataagag atatgcaagt 240
ctctttttctg ttgctggagt agaccctacg gataatgagc tgattacgtt ggagataatt 300

caccattatg tagagtgttt agacaaatat ttcggaatg tgtgtgaact tgacttgata 360
 ttcaacttta gcaaagcata ttatatattg gatgagatat tattggctgg agaacttgaa 420
 gagtcgaaac gaggaacgt attgcg 446

<210> 4391
 <211> 480
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-036-Q1-E1-H9
 <400> 4391

gtacgggtccg tacttcncgg gtcgccccac gcgtccggaa aaagactgcg tgaggaggaa 60
 tggcttgtgt ggatctgctt ggatgttttc gtacttttag ttttgtgtcg tgtcggacaa 120
 gttggataca tacaagacaa acgactcttt ggaatagagt gaaaaccaag tccgtgtgtc 180
 gtacttgtcg acaagtttgt tccatgaccg aaaaactagc gcccctaaca acttgttgga 240
 cacccaacaa cgtcacatca tcggtcgaaa agtccatttc gatatccagt tataatatgt 300
 tggctcaagt ttacgtaa atcgactcagt ttccatattg tcccagaagg taccttcgac 360
 gcaagcacag attggccctt acaaagaatc tattgcaaag tttacaagtg gatattctct 420
 gtttacagga agtagattgt tacaatgaaa tagaaacttg tctgagagaa aaaagggtac 480

<210> 4392
 <211> 423
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-037-Q1-E1-A10
 <400> 4392

gggccgagcc acgctccag caaaactgct agaatgcgtg aaattggaac ttgcgctacc 60
 tttttatgga ggagtacttt ttacgcaagt tgaaaatata aagagaggtc attttattct 120
 agataaggca gagtgttaact cttatatgga cctggaccag gatgactttt ggaaacctcg 180
 gtttacagct tgtacaacga ggagaattgc ttggctcttc gtagcatagc tcagttttaa 240
 agcacttttg aggtccgctc ttgtatatgc ctttcgatat gtacttttca ctattgcttt 300

gggtanacac tggacgggta tcgattcaag aggcagttgg caagcttttg tcattgtttt 360
gaaagttgtc accttatatc aaaacgtgat agtgaaacca agactaagcg tacattcaaa 420
cac 423

<210> 4393
<211> 399
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-037-Q1-E1-A12
<400> 4393

acgcgtccag gtcaatccag actctatgga agaggaagtt gatcccggtc ccatgttgac 60
gaggaagcac tttgaagaga gtatgaagtt tgcaagacgt tccgtaaccg atgcggtatgt 120
gcgtcgctat gagatgtacg cgcaaaacat ccaagctacg agaggattcg gtggtggatt 180
caagttttcc gatacacctt cctccaacaa tcaaggtaac accggtgacg aggatctcta 240
ttcgtaaagag aacggttcac gaatctgtgc agtttattga tgtgtggcgt tttgttgaaa 300
taaaaatttg tttagtttag ccaaaaanaaa acgagacttg aagaaacttg caaatgcaag 360
aataacccaaa ataaggataa attcagaaaa tgaagaagc 399

<210> 4394
<211> 248
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-037-Q1-E1-A9
<400> 4394

aaggtggaca cgcaagtctg gtcagtttgt tcgaaaggac caaccaagct cacaagacct 60
ttcagcttgg aggtctatgg gagaaactta ttatcctgag cgaaagagtc aagaaacatt 120
agacgctgaa gaacttcaac aaaggaagag catgaataag tcgagttcgg aacgacccaa 180
agaaaatgtt gcagctgcat catagttgag tttgtttcta tcataaactt attattcaac 240
gtgaaaaa 248

<210> 4395
<211> 432

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-037-Q1-E1-B10
 <400> 4395

cgcggtccagc tcaatgatcg atggaagaaa agagtgaaga cttgttggat aaggaaactcg 60
 agtccttggtt gaaagaacga gatgctatct tgaatggaac aagtgaagaa tacttgagtc 120
 aattggcgcc tttagagaat gaaaggaaac gtaaaactga tagagctatg gacttttatac 180
 aacttcaact acaatatgca gaacagctgt atgagttggc caagaaagaa gcatatgata 240
 gctttcaagc acaaaaggca gaacaaagag aatatatgtg gcgtattaag ttggaaagag 300
 aaattacctt gagactctta agattatcca ttccattaag ggacccaaac ggacaagtga 360
 ttgtaggaac ctttggaatg gaaggctttg tgaatcttat ctatcgcaat cgtttattcg 420
 aaaattgttc ta 432

<210> 4396
 <211> 433
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-037-Q1-E1-B12
 <400> 4396

cgcaegcgtc catccatatac ttgttggtgt tgttggtga atttgtagta gtagaccaca 60
 nagatgaacg gtgtagtatac ttcagggaat atgggtgtata acacgcttgg aaaaagcggc 120
 ttattagtat ctaaactatac ttttggctcc tgggtcactt ttaacgaaca agtggacgtc 180
 gaactggctt acagcttgat gaaaagagca tatgaactgg gttgcaattt atttgataac 240
 gctgaaactt atgcagctgg agcagcagag tctatcatgg gagaggcttt tcatcgaggt 300
 gtaaaggang gcgtatggac aagagaagac ttggtgttga ctacgaaaat attcttcggc 360
 ggaagaagtt cacgggatac ccacacctcc aaagggtgtt caaggaagca tattgtggaa 420
 ggactgcaag cct 433

<210> 4397
 <211> 391
 <212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-037-Q1-E1-B2

<400> 4397

acgcgtccag acaaagttgc tgcgaaatat tctgtggata gtcaatggta tcgaggagtt 60
attcgtcaaa aggattcggg gagagacagg ttgttggtgc aatttgtaga ctatggaaat 120
gaggaatggg ttgcatatga tgaagttcgc agtttgccaa ttgcgacaca gaatattcca 180
actgctgcgt attgtgtgct tttgaaagat gttgttgcen cagagttgac agaagactgg 240
gggatggaag ctggagaggc tttgaaagat ttggtttgga ataagcgagt tttggttcaa 300
ggcacgaagc gcattatgga cacgggaaat agtcatattc ctcatgttgt tgcagatgta 360
tatgtagaag aggacaagca atcaaggaat a 391

<210> 4398

<211> 317

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-037-Q1-E1-B4

<400> 4398

gcgtccacct taactctcca agaagttggt gcacggctgt cgaaagaacg tgctgtgaag 60
tgagagaacg tacgagaaag ccaagtgagg aaaagaaggc aagtagaggg cgccccgaga 120
aaggagaggg cgtaagacgt gatacagagt aggaagaaaa gagaagagag ctagaaagga 180
ggtaaaagaa gagtaaaagg actagaagag gtacggaatt cacgaagaag gagcgtgaac 240
gaaggacgaa tcccaagtaa tcgatgaaga aaaagcttcg gtgaaagcgt gaacggattt 300
tgtacacact gcccgtc 317

<210> 4399

<211> 379

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-037-Q1-E1-B6

<400> 4399

ccgggtcgac ccacgacgtc cacceacgcg tccgggtggaa tgaaaaacgg ttgtccttga 60
 tgaaaaagtg tcaacttccg gttctccctg aatacattga atctcaaatt ctggaattat 120
 tagagtatgt aaaggatggt gctgttgcta gaatggtttg taagcgatgg aagagactcg 180
 tggatgaaaa ttcccaattg tggagacgac ttcaaggctt tacactacca aaacgactac 240
 caagtgaagc ggaaaagtat agaaaggcag ctgaatgtgg gaatcgagag gcantgggtgc 300
 ttcttgctt gctctattat tatggatata agagtcagga tgccacagtt ttgtcnttga 360
 cgtttcttcg aaatagtgt 379

<210> 4400
 <211> 390
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-037-Q1-E1-B8
 <400> 4400

aattcccggg tcgaccacg acgtccacgg acgcgtggga atttgattag gcaacaagta 60
 gagttgatga agactgaagg agttaatttg gtatttactc ctgaggctat tcgagaaatt 120
 gctgctgttg ctgccgaagt caataccaat gtggagaata ttggagctag gcgtttgtat 180
 accgtcattg aaaggattgt agaagatatt agtttcaatg ctccggattg gaaggggtcag 240
 accgtgacta tcgatgcacc tagtgtgaaa ggttctcttg gagatatgtt gttgaagaca 300
 gacttgtcca agtttgtatt gtgacaggaa agagaggaac gatagattgc tttataaaat 360
 gtttatcgtg ttgttggttac ttttggaaaa 390

<210> 4401
 <211> 379
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-037-Q1-E1-C1
 <400> 4401

ggtcgacgca cgcgtccgcc cagcgtccg agagatttga gtatgacttt gtcgagata 60
 tgatggtgaa agtgaatgat aagtttaaatt tttatgagac agtcgacctc aatcgatttg 120
 tcgacagaac tgcagctcag gaacaaaata tcgacgtaga aaacgacgac tatgtttatg 180

ttttacattc tgttctagtt catgtgggag atgttcatgg cggacattat tatgcattta 240
 ttcgtccgaa acctttgtcg gatccctccg tttggttcaa gtttgatgat gaaacagtct 300
 taagggcaga taagacacaa gccgtcgatg ataactttgg tgttggtggg gatgaagatg 360
 agtcaccaga aaggaaaat 379

<210> 4402
 <211> 424
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-037-Q1-E1-C10

<400> 4402

gcgtccaaga ggaggaagcg aggatggaag atttctatcg agtgaagcga gtaaagtata 60
 aagataggaa cactgctatt tgcttacaaa atgaaaacgg accttgtcct ttactagcaa 120
 tagtcaactg tttgttggtg agagcgagca tcgatatcca cgccgatatt tcttacatat 180
 cttatcaaca gttggcagag cttttaacgg attatttatt tcagacacaa agtagtgcg 240
 cacaggaccc caacttgga caaatagttt tggacgtcgt tgggtgttata ccgagggttga 300
 gaacaggtat cgacgtgaat ataaggtttc gtagttgtga ctcttttgaa tatactgttg 360
 agttggctgc atttgatgct tttcgagtgc gtttggttaca tggttggata attgacccaa 420
 acga 424

<210> 4403
 <211> 321
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-037-Q1-E1-C11

<400> 4403

gcacgcgtcc agttgggcct tgtggtggtg atgccctgga ttgagctacg taatggcaac 60
 tccgctgtct tgaaagacat aactgcaagt attgaaaagc ctgacataaa atggataact 120
 aggacgaatc tcagtacttg tctgaattct gcagaaggaa atgttacggg tgacttgtcg 180
 cggcagtgtg gcttgaagga tatattttca ttgaagcttc tcgacaataa ctttaagttg 240
 gcgtgtttta atgatgcctt gtttttagtt ttaacagggt tatectttgt tattactggg 300

aatcgtatat tctgtagacg c

321

<210> 4404
<211> 430
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-037-Q1-E1-C12

<400> 4404

gacgcacgcg tccacggaca cgtggggaaa ttttaaataag ccaacctcca ggtgatgtga 60
ggtgtaatca tcatcgaaaa gtgaaacgag ttggcaatga gtgagttggt gcgacctggt 120
cgtttctttg atagcggctt tgggtgactta ttttcttgga cgaatgaccc cttcttccgt 180
gatgcatgga acttgatacc tcgagtaggt ggagctgagt ctcagttatg gtcgccgaga 240
atcgacctca ttgaaaaaga agacgcgttt ctgggtgaaag ctgaggtacc tggagtaccg 300
agagaaaaca ttaaagttga cttgaaaggg gatatcttga gtgtgtcttg agaaaaagct 360
gacgaaaaaa agtcggatga agaacgagaa ggaacggtat tccatangat ggagagaagc 420
tacggaaaat 430

<210> 4405
<211> 301
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-037-Q1-E1-C2

<400> 4405

gcgtccaccg gtatttaaca atttctcaaa atatacagaa aatacttgtg gcttcccgtg 60
ttctctgttg tcttctttac gcgatgggtgg acaacaacaa aatagtttca accaattttt 120
agcatcctcc cctctgaga gtgtggctcc ttcttttgga cttcctcgtc ttatagctcc 180
gtccatctcg gaagatggca ttacacttta tttganatat gctttgggtg gagcaatctg 240
ttgttgcggt actcactcct caactgttcc tattgacgtg ttgaagacac gtttacagac 300
a 301

<210> 4406

<211> 383
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-037-Q1-E1-D1

 <400> 4406

 gggctgcacgc ccgcgtccac tcggacaacg cagagcttag gccaaagtttt cctgtgccaa 60
 gcttgagaa tcctgctaag aaaaagttaa attcgtcagg aagctacctt gtgattggag 120
 gttgtttggc aaccgcgcgt gtattgtttg gtggtttgat aagttttcgc cgtgggaact 180
 ctgcgaactc tcaaatgttt atgcgtgctc gtgttctgac acaaggtgca accttggttg 240
 cggtagcagg tactttctgg agtgcagcaa atatgaaaag gaaggagagg gagcaggcag 300
 aagcagccgg cgaagagttg ggagtagaaa ccttgatca agacaaggcg aaggctctcc 360
 tagaanagac cggtgcacag aaa 383

<210> 4407
 <211> 403
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-037-Q1-E1-D11

 <400> 4407

 attcacgggt cgacgcacgc gtccaagttt ctttgagaag tcattatgag ctttctgtac 60
 agaatgccat cgattttgtt acctgcagg gtagaatgaa atatgttcgt cctatttaca 120
 aggatcttta ctatatctat cctcagagggg atttggcgct gaagacattt tcagaaaacc 180
 gccatcgtaa tcatagtatt gcagcaaagt tgattgcgag ggacttgagg ttgatagaaa 240
 attgattgct ttttatgtac aacaacaagc agggctctctt gttatgtctt ggtttgtttg 300
 tgttgtagtg tctgaatatg caagtggatg cccgtaaaca actattgaca tatatatata 360
 catatatata tgtatatata gaaagataga tatcgatata cat 403

<210> 4408
 <211> 401
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-037-Q1-E1-D3

<400> 4408

gcgtccaagc gtaactccgt ttcttggaag gcctttgggt ttacgttgct gtaatatcca 60

acaaaagaaa tactggataa aacaaagata caataatata gtagtatttc aagtaatatg 120

tgcagctaatt tcgaaacagt ctttgtaccg aattcgctcc ttgcaacgac aagtaagtaa 180

gaaagtgtct gtgtattctt ctcttgcttc ctccaacca cacaataaca acaacaacaa 240

tcttcgattc tctctctagg aaatagttga gtttacaagt atttgcaacc aatgttttca 300

tacacatcct ccatggaagt tggtactgag acctatattc tttttggaaa catttcttgg 360

tctaattgtt ttgatgaata gaaaagaatc gcaagatgac t 401

<210> 4409

<211> 330

<212> DNA

<213> *Cyanidium caldarium*

<223> Clone ID: LIB190-037-Q1-E1-D4

<400> 4409

gcgtccaaac aaaaggaagg aaacaggtgg aatcgcgta ttacttttct cgttttatgt 60

gtcgaccacc ctcaattgga tattcgcaag tctgctgtaa agtgtttagc agaaatacaa 120

atgcatattg gagaatggaa tcttacgaat cttttattga gcaatacgca gcgaaaatgg 180

atagaaatgt atatccaaat atctcaacag caacattcga cataatgcaa caagtccgct 240

gtacgggttg ggtaagagat gccgttggtg gagaacactt gttgtattcc attagtaaag 300

aaagatgggt attattagaa tgaaacgaag 330

<210> 4410

<211> 462

<212> DNA

<213> *Cyanidium caldarium*

<223> Clone ID: LIB190-037-Q1-E1-D7

<400> 4410

gtaacgggtcc agaattcccg ggccgacca cgcgtccacc cagcgtccg cccacgcgtc 60

cgcccacgcg tccgcgttca gcactacgta gactccaaag gtgtttctta ttacgggttt 120

gaagcctggg ggaagtgggt agctgatggg tgtccacctc gtccttccaa agaggaagtc 180

gctaaaagga cagccagtc tggtcagttt gttcgaaagg accaaccaag ctcaacaagac 240
ctttcagctt ggaggtctat gggagaaact tattatcctg agcgaaagag tcaagaaaca 300
ttagacgctg aagaacttca acaaaggaag agcatgaata agtcgagttc ggaacgacca 360
aaagaaaatg ttgcagctgc atcatagttg agtttgtttc taccataaac ttattattca 420
acgtggcgta ctttggttacg ttgttccact ttgtgtggtt tt 462

<210> 4411
<211> 375
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-037-Q1-E1-D9
<400> 4411

gcgtccactt taaaacaaaa gcagaagaac aacacaagag attttctaag gcattcgata 60
ttgaaagagt tcgtcgaata actacgatag gagaactcga tgactattat atatccaaag 120
tttttggtt tcatggaaag gaagattatt ataggaagaa tggaagtga ttcttcttac 180
cttttgctag agttcctttg cttattcttc agtcgaagaa tgatcctatc gttgatacag 240
aacatgtacc acaaatacct aaatctctac ctattcattt attttatact gagaatgggtg 300
gacactgcgg ctatttccaa ggattctttt ctccatctta tatggcgcaa gaaatgtccc 360
gttttttggg ttgga 375

<210> 4412
<211> 280
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-037-Q1-E1-E10
<400> 4412

gcgtccaccc acacgtccgc ccacgcgtcc gagaattcga accagtactc atgaggggac 60
atataatttt gatagtaata ataattccta agtatttttc tttcgtattg gtttgcata 120
taaacaataa gaacaacgaa aaataaaaaa aataaagaaa aaaaaaaaaa aaaaaaaaaa 180
aaaaagaaaa gaaaaacggg cagccgctct aaaagatgca tgcttacgtg agcatgcaag 240
aaaagtcac tcgcttatat actgtcaact aaattaaatt 280

<210> 4413
 <211> 214
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-037-Q1-E1-E12

<400> 4413

 cgcggtccata actgatgaaa atgcagtaaa ctagcagtag gacggaaaga ccccataatt 60
 cttgactaga taggtttang gangagagag aatcatgaag tanaggaggt ggggtaagag 120
 atgaaagaca ctgcatgagg ataaggaatc taactgagta aggaaaataa gcttaagcta 180
 atttggctgg ggaagtaaag cctaagaaag agta 214

<210> 4414
 <211> 450
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-037-Q1-E1-E6

<400> 4414

 ttccccgggcc gaccacgcg tccatattga ttgaaccaac ttctggcaat accggaatag 60
 cgttggcggtt tattgctgcc tctcgtgggt attctctcat cttgactatg cccgagtcca 120
 tgtcgatcga acgtcggatg atacttttag cgtttggagc ccaagttgta ctaactcctg 180
 cttccaaagg tatgaaagga gcagttttga aagcagaaga actcttgaaa accacaccta 240
 atgcatacat gttgcaacaa ttttccaatc cagccaatcc caagattcac tatgaaacca 300
 cgggaccgga gattgttgca gctggagggt gcgatgtatt tgtttcagga gttggcacag 360
 gaggtactat tactggtaca gggagatatt taaaggagaa gaatccatcg gtccatattg 420
 tggcagtaga accgaccgaa tcccctgttt 450

<210> 4415
 <211> 421
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-037-Q1-E1-F1

<400> 4415

cgggtcaagaa ttaccggggtc gacgcacgcg tccacccacg acgtccgctt gttttggctt 60
tggtagtgat ctattatgct ttgcttgccc ttccattggc gtgtttctgt cttattatgt 120
gctgtttacc attatttatc aggttacttc ttccttatgc ggagagcaca caacgtagac 180
gtggcagagc ggcaacttta gaacaaatca acagtcttcc atgttccagt tatgttcatg 240
gctcctttga gagagaagaa gatacgagtt gtgtgatttg tcttacggac tatattgacg 300
gcgacatgat tcgtcactta ccttgcaagc atcattatca taagaaatgt atcgatgaat 360
ggctagcatt ggacaagtct tgtcctcttt gtaaaaagga tattgattgt cgtgaagata 420
t 421

<210> 4416

<211> 439

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-037-Q1-E1-F12

<400> 4416

acgcacgcgt ccacccacga gtccgtgaaa taatgcagat atttgtaaag acacttacag 60
gcaagactat aactcttgaa gtggagcctt cagatactat tgagaacgtc aagtccaaga 120
tacaagacaa ggaaggaatt cctccagacc agcaacgttt gatatttgct ggaaagcaac 180
tagaagatgg tcgtactctt tcagactata atattcaaaa ggagtctacc cttcacttgg 240
tattgcgttt gaggggtgga atgcagatat ttgtgaagac acttacaggc aagactataa 300
ctcttgaagt ggagccttca gatactattg agaacgtcaa gtccaagata caagacaagg 360
aaggaattcc tccagaccag caacgtttga tatttgctgg aaagcaacta gaagatggtc 420
gtactctttc agactataa 439

<210> 4417

<211> 449

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-037-Q1-E1-F3

<400> 4417

gggtcgacgc acgcgtccac tgttgcttgg gtactgaatg gcgagatata tgaacttcat 60
 gttcgtaatt atggaatggc atggggagct tttcttctct tgggttctgc agcatcttca 120
 acgacttctt tttccaagca agtttcagcc ctaactttgc agggaacttt ctatTTTTat 180
 gtcggagtat cattgctgtt tctaatttc catttgatat ttttacctga aactaaagga 240
 atgttacttg aagatgtgag agagctcttt aacgatggca tgttgggatt ggcacggaga 300
 aacttgagca atattcaaaa ttccattttg cataagtttc ctactctttg gaagagaaat 360
 gaatcatgaa tttatTTTTa aaatatatgc ttgccctttg ttctagtgtt tttgttgacc 420
 tttgcttgat aataaaaacag agtgaatgc 449

<210> 4418
 <211> 170
 <212> DNA
 <213> *Cyanidium caldarium*
 <223> Clone ID: LIB190-037-Q1-E1-F6
 <400> 4418

actgttctag aggtcaacgt aatcctatgt ttcttccaaa agagacatca actcctagcc 60
 gaggatgatg aaggatgtcc ccaagttcgg agaaggaagt agaaagaaga gagtgtgaagg 120
 cggcgtcata atagaaatcc gaaaggagta gaagaaaaga gagagaaaaa 170

<210> 4419
 <211> 374
 <212> DNA
 <213> *Cyanidium caldarium*
 <223> Clone ID: LIB190-037-Q1-E1-F8
 <400> 4419

ttcccgggcc gaccacacg tcaagctatt gtgtccctca ctacgagggt tggTTTTctg 60
 ttgtggtgaa gactttgttt agcaacttgt gtgcaaaaaa tggTcaactt gttgtatact 120
 gatgaggggac gaaacctgtt aaagggctac caactcattt tatatgttgc tatgttggct 180
 ttctccgcca ctatTTTTggg gcttatgggg aatcccatgt ttaatctcta tctaattgcc 240
 aatgaatata gacaccgga tcctagcgaa cttttgtac ccattgacaa agtgaagaac 300
 gtcactttct acaagtctct ctcttctgt gcctgggggtg tcacaggaga tcgtacgcgt 360

ggcatgcatt ccac

374

<210> 4420
<211> 297
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-037-Q1-E1-F9

<400> 4420

gcacgcgtcc aactagatct actgccgtcg aaccgcctca tatggagcac ttgtgcaact 60
ttttgttcca gaatagagta atttccatgt ttactgggat agagcgtatc tttgctccat 120
atgcāgaact agaatatgtc ctcgttcgta ctgaatgggc aataacagta gtgtttcgcg 180
caatatcatt attggtgcac aagtcagctt aatcattgcc atacaatgac gtgcttgaag 240
aagattctac gtggtcactt tgttcctatg agtaaatttg agtagtaaat ttttccct 297

<210> 4421
<211> 433
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-037-Q1-E1-G11

<400> 4421

acgcgtccga aattttatcc aaatatccct ttgcgaaaaa catgttttcc gccaaaccaa 60
caaaaattat tgcacaattt acaaaaagca tttggtaacc aacattaaag tataaaagtc 120
ctttgcacct gagtanagca gagatatgga gagcttctta tccaattgga agcagacggt 180
cctttgcaga acaaaaggca cagcagcagt ccaaagaagg tgaagaacca ataacgcctt 240
atcaacctgt gacggagaag ctggataaaa gagacccaaa ctatccttgg aagtggagaa 300
gttntcttcc tgaacatacc tacaaccca aactcaatat caatctggaa aggcatacata 360
cacctttaga ttttagagat aaggtagccc cggaatcct caagttttta agaatttttg 420
cggatgcctt ttt 433

<210> 4422
<211> 364
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-037-Q1-E1-G2

<400> 4422

gcgtccaatg agattcacct gtatgaatat tacaattcca ccttacaaca gtccacagat 60
catcaagatt tgggcagtat tcataagcat tttgggcttt ttgttgcttt tatecttttc 120
ttccatgttt tactggatgc gaaaaaatgc tcctcgaacg gacttataga tgcttatcga 180
tgagagctttc cgcggtgtaa tgactttgaa taataaagtt gggttgcttc catttaaaaa 240
aaaaaaaaag aaacaataaa aattaactaa tacatccttg tcagtaatca tgaatacaac 300
aaataaaatt gcgagaaata caaagaagtc ttaaaagaaa ataaaaaaaa aaaggggggc 360
cccc 364

<210> 4423

<211> 435

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-037-Q1-E1-G3

<400> 4423

gcgtccgccc acacgtccgc ccacgcgtcc ggatttttcc gtcgtgaggg acgagtatga 60
gttttcaagt caagcgtttg gcgacgcgag tcaaaaaccc gacatgtctg ttttctcttg 120
tgctccattg cttggtgcaa gacttgaaga gcagccatat cccaacaaag ctcttgaagg 180
acctttcaag agcctccagc ccgacttcta tcccagagtct gagaaaaagc gcgtcttttg 240
ttataatgag caatactcct catctttacc tgagaacctg catagttgga gtttgagggc 300
acgttgtagc agcgatgata gttgcgatag agagattgag agaggtttaa agtggacgga 360
gaaatctact tgccttgga ctttgcaaga gcgcgtaaag gctctannaa gaagaaacta 420
caggttgaat atgca 435

<210> 4424

<211> 141

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-037-Q1-E1-G5

<400> 4424

gtaaagggtcc agaattccccg ggccgaccca cgcgtccaga aactcccaaa gataagttgg 60
atacgagtca agtgactcca gaagggaaat atcacaacca cgacagtcct tgagaaataa 120
atcgacactc gtgtgagatt t 141

<210> 4425

<211> 428

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-037-Q1-E1-G8

<400> 4425

ccgggcccgc ccacgcgtca gtaggattag aacaagtgga tacgctatcg aatagtttac 60
gtaattcggc gggtatttcc aaggatgaat ttcattggagt acctgccacg ttttccaagg 120
aagatatgag tacttttaggt ggaaatagtt gtttactcat ggagacgaat aacaacagtg 180
caaagtggct gacgagtagc aagatgttgt catcggaatc ggattgccta acaactagta 240
cgacgacaac tcgtggagaa agtcctgtga agaagacatc gaataattat acgacttgga 300
cgagttatga aattcctgga gtttcgtttg gagatgactt gggccccgc tgggtattat 360
ctcttttctaa ttcttccttg acagccaatc ctccggatgc tgcaggaaac aactctttat 420
ataatcac 428

<210> 4426

<211> 288

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-037-Q1-E1-H1

<400> 4426

gggtcgacgc acgcgtccgc ccacgcgtcc ggctggctgt tttccaccgc atgaaactag 60
aaacattatg gaaatggcgt atcaacgaat atttggaaac tattacatat tcgaagctga 120
gaaagaagaa ttgaagacca ttgactctgc tttccagaat ggaagatacc gcgtaagga 180
ctatgttcga gctctgagca agtccgatgt gttcaagaac aagtttttct ataatcgccc 240
aatccaaaac tccaaccaag ttgtgtttcc gtaagaaaat gggaaagg 288

<210> 4427
 <211> 364
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-037-Q1-E1-H11

 <400> 4427

 acgcgtccag cattattatt tacgtggcag tgattgcact aactactttg actaccgttg 60
 gttcggggat ggcttatata tatcacgtat tttggaacaa acaaggaaat gtattttcaac 120
 atgtcacaaat gataagacga caacgcaatc gaccgaaatg tttctaaatc ctcaacacaa 180
 gtgttttccaa acaggaaatt cgcctttctga taagcttacc tgatgaacgc gtatgcctaa 240
 tcatcataaa accttgatac tgggtacgcaa cctatataat aaaatatatc atcataatcg 300
 agtaaaagta ctgttgcgag agacgtgtcc ggacaaaaaa tatagaaaaa cgaatttttg 360
 gaaa 364

<210> 4428
 <211> 407
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-037-Q1-E1-H3

 <400> 4428

 cgggtcaagaa ttaccgggtc gacgcacgcg tccactcacc aaaaaagatg tggaacattg 60
 tttcgatgtg atatggttta gcatatttga tatccaatat tcttgtttat gttctttgaa 120
 tgccttgaac cagatgtgtc gaacctacag cgtgtctgtg ccggctggcg atgactttga 180
 atttccaaac tctccttgct taagtgaactg ggatctcggt cattttgttt cccatagcaa 240
 cgaacctgta tttcgtgtat ttcacaagtg catcatgtgc tgcttttttag aacaaagaat 300
 agttgtcttt cgggatggcc tttgtatact gaaaaattcc aacagctggt tgttggttga 360
 tgctttgcgt gatatcacan aacatgaaaa ggacanagaa aaccctg 407

<210> 4429
 <211> 423
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-037-Q1-E1-H4

<400> 4429

ccgggtctga cccacgcgtc cacgtatagc tgctgttttc aatgcagctt tgacatttgc 60
agattgaaat ctcttagcat gaaggttcta agaccaacga aggacagtgt cctatggaag 120
aagctagcaa taataatact gatttagagc aaactatfff ttcaacggga aaggacacag 180
ttggggcaaa cagcgatcat attcggctac atgaagactc caactatfff tattggaaag 240
gttactggta cggatatttt ctatcccagt ggtatctttg gattggagaa agtcctcctc 300
ctgtcgaaca cgcaatgcag cagtacaaag aatattcaca agtccaactc caggataagt 360
agattagaaa atgggtctttt gttttctcaa tgcagccagc actcttggtg ggtccgtttg 420
ttc 423

<210> 4430

<211> 433

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-037-Q1-E1-H5

<400> 4430

ttccgggtcg acccagcagc tccacccacg cgtccgcccc cgcgccgaa cgacagttgt 60
cttgtcctac ttgtagagct cccgtagatc tctcaagtga taatccaagt ggaacaagtg 120
ttggtgcaaa tgttgttga gagcaaggac aagtgcaaaa cccagtagaa aggagacaga 180
tggaatatgg aattgccaat cctccaagag gacgtacatt aagagttggt ttgcgtgtca 240
atattgaaa caggactgca gagtggaatc ctttccaaga ggacctgttt cagacattgc 300
acgaagcaag tcattctact ttgatgcatt tcagtccttg tcctcgtcct cctcctttcg 360
agnatttagt atgaaatgaa caacagtcgg gttggaacag cgtccttagt aataacagta 420
ataataatac gat 433

<210> 4431

<211> 422

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-037-Q1-E1-H9

<400> 4431

tgacgggtcta gaattaccgg gtcgacgcac gcgtccaggg gcagaacagt ttggtgcagt 60
attgccagcg ccagtagaag aaacaaaagt gtccaaactc tttggactct gctttgcttt 120
ctatctagaa tggcagtgga aatgaaatcg ggagtggcaa gttacccttt ttctgtcggg 180
agagagtgc aaggggttcgc caccagaca gcatgttttg gcacttggcg ccacaaaacg 240
aaactgacta gggcaaaaca ctgaatgtga ttgataaag agtaagcgtg cgtgacactg 300
gcagagtggc aaccgcaggt tcgtctgtta catagccagc tgtcgtgtcc ttatctcttg 360
cgagattagc tccggttaga cgacgctaca aagccaactt gcaatcctcg agacgctttg 420
tc 422

<210> 4432

<211> 352

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-038-Q1-E1-A11

<400> 4432

tgtccgtgtc tcggagacat ttaagaagag atcaatcaaa gttatcccca atacaagatg 60
aggtacaaac aatggcggtc ctaacggtaa ggatccaaag gtagcgaagt aaatagacgt 120
ttgaaaggcg tccagtatga aaggagaaac gagtgtagca ctgtctagtc gtccaactca 180
gcgaaacagc aataactgtg aaaatgcagt aaactagcag taggacggaa agaccccata 240
attcttgact agataggttt agggaggaga gagaatcatg aagtagagga agtggggtaa 300
gagatgaaag accactgcat gaggataagg aatctaactg agtaaggaaa at 352

<210> 4433

<211> 422

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-038-Q1-E1-A12

<400> 4433

cgtccgagat tggacaaaac aaggggtggtg gtgggtggtga ggaaaaagcc ggttacaaga 60

cacacacgag tttctcgtgg tatgggtgaa aagtatttag agcaagtgtg gatattcata 120
cgacaataaa tcaaccttgt gtccggtgag aaactgtgct acgggatgaa caatagtgtg 180
gttgcgggac agagtcacga gtcgagtggg tacttgaacc aagtattaca agcactcgat 240
gaagcaaaga agcaagcaat agaacaatta caacaacgag cagaagaaat tagagaatgg 300
tctacggtga caaccaagaa tacggtggat gcgttggttg aagagtccaa gtatatagcg 360
tctttgcaaa ggcagaggag caagaagaat aactactacg aaaagattac gctggggttg 420
at 422

<210> 4434
<211> 342
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-038-Q1-E1-A2
<400> 4434

ggctctagaat tcacgggtcg acgcacgcgt ccgaattgac tgaaaaattt ttcgcgcggt 60
gtatccatcg ttgtgctctt agcttcgcga ctcgtcgatt cttttgtgtg tgattggggt 120
atccgaatcg cctttgtaaa cgcttggtga tcagagagaa gtaggaatgt tggacccgga 180
gactcatgaa agatctgttt aattatcatg attagctgag catgcagagc gttatgatga 240
catgatacaa caaattacaa agaatgcac agacgccaac gataaagtag cggaacttac 300
tgtaaataaa cggaatcatc attcactggc atatatgaat gt 342

<210> 4435
<211> 322
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-038-Q1-E1-A4
<400> 4435

acgcgtccgc agtaaaagaa gaaagagaaa ggaaaaaact gagtatcagg aagaaaagag 60
ggagtagatg aggaagagaa gatcaaggaa gtaagagtaa gagaaggagt aatgtgaatg 120
aaagcaggaa agtatttgaa gaagagagtg taaagcgcgt accttttgca taatgtccca 180
gcgagtgaag gaggaagcaa aaagaaagaa aaagaagtag ccaggtaaga cccgaagcta 240

gttgatctta tgetgtccaa gcgaagtaag ggtgaaccag tatctgtgga aaaagatttg 300
gaagagatgg cataaggggt ga 322

<210> 4436
<211> 450
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-038-Q1-E1-A5
<400> 4436

gggccgaccc acgcgtccac gtgtgggtgt gctcagtcag aactgcttct cagttagtta 60
cgcaatatgc ctagtcataa ggaacaaaat aaaggaatta aaatatcagc tgacgggttac 120
gcactaaagt tgagcgggtat tcggttggac gtagacggca gtttggtcac tatgggtggac 180
gcagacgacc tcagagccct catgtttaag gaaagcctca aggaaaagtc aaagctgcat 240
gacccaaaat ttttcaaaag ctattatgag gagaataagg actactttta ttatatgact 300
catacggaga agaaaatggt tctttctctg gaagttgcac gagaatacgc tactctggtg 360
ggaaactcgt ttctgcagaa atatttggac aaagtcattg agcacgaaca cgcatactaa 420
gggaaacaac gttgttgctg atagtttgcg 450

<210> 4437
<211> 239
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-038-Q1-E1-A7
<400> 4437

gtccgggtcg acccacacgt ccaggaaagg tcatggaaag aagttggtta acaaatgagg 60
acacgtataa cagaacacaa gaaaggaaaa cgtattctaa atcaaaaatt gaaagctttg 120
ttcggtgagt cggtgtattt tccaaccttt ttccaaggat tgctgcaggt gaaaaatgat 180
attttaaggc gttctctttc cgaggagcca taatatacct tctaaagggt ttatagttg 239

<210> 4438
<211> 322
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-038-Q1-E1-B1

<400> 4438

gcgtccgaat ggaaggacac ccaaattgttc gaagtgggta tagtaaaaac cagtgccgac 60
atcaacgctg gaattctgtgt agcaggcatc caccatggga cctggatgta gtcgatccag 120
tataaatctg catgtgggga aggattgggc actgatacaa ggaagtatgg gacaatattc 180
aggaatggcg taaacaaggc aagaaataaa aggaaggaat acacggtagt tgtggcaaga 240
acacatacga actgcaacgg tttaagatct cgtgtaatcg atgcactaaa aaactgagtg 300
attaagtcga ataggagtca tt 322

<210> 4439

<211> 427

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-038-Q1-E1-B3

<400> 4439

gggtcgagca cgcgtccggc attatggaat gaaacatttc aaatgatttt gctgtggtgg 60
aaaaccagaa acgagtagtt tctacatccg ttgtgttgtc tcttgtgtcc actggaaatg 120
gagatgattg caaatccttt ggaatacaac gacaaaggag atatctaaac tgtanggggg 180
ttttctacag aaacagaggg taactcgagt gtcttcattg atagaaaaga ttcccagaat 240
gtcgacggcg tttagagaca gaatgagaaa gctatccgca acaaccttgt atacaggaag 300
ctccctatga tatccgtgag gaggccatgg cagacttgaa aatactcgtc gaatattcaa 360
aatgaaaaaa gaatcganaa actctacgga aagcattgtt attcgttcaa gacatgaaga 420
acaaaag 427

<210> 4440

<211> 462

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-038-Q1-E1-B7

<400> 4440

gtataggtct agaattcccg ggctgaccca cgacgtccac ccacgcgtcc gaaccaatga 60

acgaagtgtg gataatagaa ctagatgggt caagtcaaaa tctaaaaacg ctcgttctac 120
 ttggaacggg aaggtacaac ttccaaaacc atggaaagcg gaaccacctt ttgggccggt 180
 gacagaaaca gagttgaaaa gaatgagaga agaattcttg gatacgagag tggaaggaag 240
 gcaagaaatg tggcaagcgt tgaaagcagc agcagaaacc aacgacgaaa cgttgcgaaa 300
 tgaaattgta aaggcagctg gattgactcc tgccaatgaa cgaagaacgt tggaatcttg 360
 ttacgatgaa ctaggcaact actatgaggt accggtgtat tgtttgaggg accccgataa 420
 cttggttcga ttggaagaag aggaagacaa caagaacaag tc 462

<210> 4441
 <211> 458
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-038-Q1-E1-B8

<400> 4441

aattcccggg tcgaccacg acgtccaaaa gtgtagaaag aaagagtcga aaggcttttt 60
 ttttcgtggt tcgatgggtg gattgtgcaa tattttttga caatgaaaaa aatattgtac 120
 atctactgaa atgtaagaac atgaggaaga aagaggcaaa tacgggaaag cagtaaaaga 180
 agaaagagaa aggaaaaaaac tgagtatcag gaagaaaaga gggagtagat gaggaagaa 240
 agatcaagga agtaagagta agagaaggag taatgtgaat gaaagcagga aagtatttga 300
 agaagagagt gtaaagcgcg taccttttgc ataatgtcnc agcgagtgaag agaggaagca 360
 aaaaganaga aaaagaagta gccaggtaaa gaccgaagct agttgatctt atgctgtcca 420
 agcgaagtaa ggctgnaaca gtatctgtgg aaaaagat 458

<210> 4442
 <211> 359
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-038-Q1-E1-C1

<400> 4442

gggccagaat taccgggtcg acgcacgcgt ccgattatac gtcacgcgat ccactgtggt 60

atgttgccag ttgaagttaa gcctaaggat ggttctttac gttctcaaag gcattcttta 120
 ttataataa catatacatg cgtggacaat tcttctgcga tttcacacac ggaatcttct 180
 catctatcat gataagggtga cgggtcaactc actcctccga tatcaccaca cgatgcaaga 240
 taatactttg gttctaacia gttaatgtcc agttagataa catatcaagc atgtccattg 300
 acacctcgat ctacagttcaa agatcctaag ttacagttgg gtcctatagg ttcttctgt 359

<210> 4443
 <211> 445
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-038-Q1-E1-C2

<400> 4443

gggtcgacgc acgcgtccga tggccacttg gcgcattcgt tgtttccgct ctccaaccaa 60
 agtcaccttg tcgttgtggc ttgaaatatt ccacttgtaa gaaaccttat cgtatagata 120
 ttttacgaat atccaaacct agttgtttga ataaactaga ctttcgagct tctcagcaaa 180
 aaaaggactc aaagaactcc aagttattgg ctttcgaaac gaatggagat gttctcaagt 240
 ttggagtctt ggttactagt agttgccttt tttgttattg gttcctatta caagtatttc 300
 gagtatctga acaaacagct ggactgggtga ctactggatt gttaactatc tttggaatgg 360
 gactttggac ttttccgtat tttctcgcgt tgctaataa gagatgacat atgtgcaaca 420
 gttgagagag tatgaagaca aagtt 445

<210> 4444
 <211> 431
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-038-Q1-E1-C4

<400> 4444

ggtcgacgca cgcgtccgac gtcattattat gatgcctaag agagttgaag ttgtcgtgga 60
 tgcaattttt atcgaaagta ctgaagtggc caaggcagag cctggagata atgttcgact 120
 tcgaatcaag ggaatggaag aagaagatat tcggatggga tttgtattgt gtgacaccga 180
 tgctttgggt caaggcacta cgttatttga tgcacaaatt atgcttttgg actataaaaa 240

tattatttgt gctggatata gttgtgtcat gcatgtacat gcagcagtcg aggaatgcac 300
gattgaaaag ttgctggcac aagttgatcg gaaaacgaac caagtgtac aaaagccgac 360
aaaattctta aaaccaggaa tggcagcgat cgctcgcata tctgtagcgc agccaatttg 420
tatcttacct t 431

<210> 4445
<211> 452
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-038-Q1-E1-C5
<400> 4445

ccgggtcgac ccacgacgtc caattttgaa tcgatcttgt ccaagtgaga atggcggcaa 60
agaatgaaaa ctcttgttgt atgcttttgc aagtgaagag actaagcaag gacgctgttg 120
tacctcaaag aggttcgaaa cttgctgcag gttatgacat ttgttcctcg gaagactgta 180
ttgtaccagc tcgaagtcgg tactgtgtta aaactgactt ggcagtggcg attccctcgg 240
gacactatgg aagaatagca cccagatcag gacttgccct aaagcatgga atcgacgtag 300
gagctggtgt tatagatgag gactatcgag gaagcctcgg tattatttta tttaatcatt 360
ccgaagaag gatttcatat atccaaagga aatcgaatag ctcaacttat cctagagaga 420
atctctactc ccgaagttgt tgaagtggat aa 452

<210> 4446
<211> 464
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-038-Q1-E1-C6
<400> 4446

caggatatagg tctagaagtc ccgggtcgac ccacgacgtc caccacgcg tccggagata 60
tttttattgt gttgcaaacc acatcatgtc acaacaaccg tcttctgcac ttcgagtcgt 120
tgtattcagt accaaagact atgatcaaag tggattgaca gaagcacttg aacgtgttcc 180
taatgtgtgt cctataaagt ttcggttctt atcgctcagg ttgtctgcaa atacagctga 240

gcttgccaaa gatgcagacg ctgtttgtgt ttttgtcaat gatactgtga acaaggaagt 300
attgaagata cttcacgaca gaggagtgg tttgatagct ttgcgttggt caggcttcaa 360
taatgtcgat ttaaaggcag cttccgagtt gaaaattcct gtggttcgna gtactgccta 420
ttctcctaat gcagttggag agtttgttgc tgcacagtta ctta 464

<210> 4447
<211> 434
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-038-Q1-E1-C7
<400> 4447

attccccgggc cgaccacga cgtccagttg ctcgaagaac gaagaaattt aggcaatgga 60
aatgggtgg attgggttac tgccgaagcc ttagcttttg cttctttgct ggatgaaggt 120
tatcgcggtc gtttaagtgg tcaagatagt gagcgcggtta ctttttctca acgtcatgcc 180
gtctgggtcg atcaagaaaa ggagactcgt tattatcctt tccaagttat tcatggcaaa 240
gatccaagtg tctacaattc gcacttgtca gaaaatgcgg tgttaggttt cgaatggggt 300
tattccttgg aaacacctca gactttggtg atatgggaag ctcaatttgg agactttgca 360
aatgctgcac aagttatgat cgattgtttt ctatcttgta gcgaaaggaa atggagaaaa 420
caaagtgggtt tggt 434

<210> 4448
<211> 258
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-038-Q1-E1-D1
<400> 4448

ggtctagaat taccgggtcg acgcacgcgt ccgaccacac gtccgtgtgt gtgaagagtg 60
aatgggaata agctgactac caagtagaat agagggacta catgaggagg tgcagatcaa 120
ggaagtaaga gtaagagaag gagtaatgtg aatgaaagca ggaaagtatt tgaagaagag 180
agtgtaaagc gcgtaccttt tgcataatgt ccagcagagt gaaagaggaa gcaaaacaca 240
aaacaaaaaa acactatc 258

<210> 4449
 <211> 453
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-038-Q1-E1-D3

<400> 4449

 gggctgcacgc acgcgtccga catcgaggca tccattttca catttgtgtt tgttgaagag 60
 cagcatgatg aagagcgcta tgaagttctt tgtatttagc attatttttg caaatgttgt 120
 tcttactatt caagcagcaa cggtttttga gactttggag tcactgaaat atacagagta 180
 tcttgacatg gtaaaggctg caggcctgga ctccaagttc aacgactctg ctgttacatg 240
 gactgttttt gcagcaaaca atactggagt caatgccacc ttggcaccaa agcacttggg 300
 tattttcta atcacatcta atgcgacgga gagcaaagac attgtggaat atactttgta 360
 caaccatact cttttgtcag atgatattaa gacaggaaca actatcctta acgccgtana 420
 cggaatgaat ttgactgtgg ttaagaatac gac 453

<210> 4450
 <211> 342
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-038-Q1-E1-D6

<400> 4450

 ccgggtcgac ccacgacgtc cgaacgcgcg tccgcaagaa agtaagtgtga gaacacattg 60
 catttgccgt atgttttggc gagtgtcaca ggaagtgaag gaggaggcaa agagatagcc 120
 aggtaagtcc cgaggttaga tgctcttcta ctgtctatta tactgtccgc tcgacctata 180
 gctgtggcag tagctgtgga aaaggatgtg gaaggggtgg catgccgggc gaaacgccag 240
 acagctggaa tgctacctgg gccacctcga tagcgtagc agtagcgtat gcaggaaagg 300
 agaaggtaga agaagcaaag gaggactcag agcgggactg tg 342

<210> 4451
 <211> 278
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-038-Q1-E1-E11

<400> 4451

tccgagcaag tacagggcgg cccgagaata gagaaggcgt aagacgtgat acagagtang 60
aagaaaagag aagagaccta gaaaagaggt aaaagaagag taaaacgact acaaaacgta 120
cggaattcac gaggaaggag cgtgaacgaa ngaggaatcc caagtaatcg atgaagaaaa 180
agcttcggtg aaagcgtgaa cggattttgt acacactgcc cgtcaagtgc tggaagtgtg 240
ctangaataa gcaggagaag tagaagagag tangaaaa 278

<210> 4452
<211> 446
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-038-Q1-E1-E2

<400> 4452

gggtcgacgc acgcgtccaa ctttatggac tttggatttg cacgtgtggg tgtgctcagt 60
cagaactgct tctcagttag ttacgaata tgcctagtca taaggaacaa aataaaggaa 120
ttaaaatata agctgacggt tacgcactaa agttgagcgg tattcggttg gacgtagacg 180
gcagtttggt cactatggtg gacgcagacg acctcagagc cctcatgttt aaggaaagcc 240
tcaaggaaaa gtcaaagctg catgacccaa aatttttcaa aagctattat gaggagaata 300
aggactactt ttattatatg actcatagcg agaagaaaat gtttccttct ctggaagtgtg 360
cacgagaata cgctactctg gtgggaaact cgtttctgca gaaatatttg gacaaagtca 420
ttgagcacga acacgcatac taagga 446

<210> 4453
<211> 344
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-038-Q1-E1-E4

<400> 4453

ggctctagaat taccgggtcg acgcacgcgt ccgaccacga cgtccgacga aaggttacct 60

atggcattgc tattcctaca attcttggtg ctgggtgttat taatgggtcat gttgctgcaa 120
 agtttatctt tactcgaatt ttccgtgggt ctccggcactt gcatgagcat actgttattg 180
 ggtgggggtac ttggattggg ctgtgtgctc ttgcctggat tattgcatgg ataatatcag 240
 aagtcattcc ggtatttaaat gaccttcttg gtttagtagc ttcattatctt gcgtcacaat 300
 ttacttacgg ctgtgtggt tacttttggt tatttgataa ttat 344

<210> 4454
 <211> 286
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-038-Q1-E1-E5
 <400> 4454

ccgggtcgac ccacgagtc aattggggcga ttgtgtgaag ttgtgatgga aacaactgcg 60
 tctagcaagt cggaacaaac tggtcaccag tggtctcatg gtgttgatgc ggaaggaaaa 120
 ccgaaaaaga agatgtgttg tgctgtctcc gaaacaaaga aacagcgtga tgagtgtatt 180
 ttgcaacatg gagaagataa gtgtaaagaa ttcattgaag cgcacaaggc ctgtctgcgt 240
 caagaaggct tcaaagtgt aagaaaggaa ataaagcttt tggaat 286

<210> 4455
 <211> 250
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-038-Q1-E1-F1
 <400> 4455

ggtcgacgca cgcgtccgag catacgtccg gtgcagtata gtgtgtgcgg ccatccaaat 60
 attacacatg caatcgagta aagtgaacgc gagtataaga tgggtgataa aaattggcgg 120
 tcctaacagt acagatccat gtgtaacgaa gttaatatat gtttgatagg cgtcctgtat 180
 gcagggatat gacagtatga cactgtcaat gtcgtctaac acaacgtcac agcaatagat 240
 gttacaatgc 250

<210> 4456
 <211> 339
 <212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-038-Q1-E1-F2

<400> 4456

ggctctagaat tcacgggtcg acgcacgcgt ccgcggacga cgtgggcgga cgcgtgggcg 60
gacgcgtggg cggacgcgtg ggttggtggg cttgtggtg gtgatgccct ggattgagct 120
acgtagtggc aactccgctg tcttgaaaga cataactgca agtattgaaa agcctgacat 180
aaaatggata actaggacga atctcagtac ttgtctgaat tctgcagaag gaaatgttac 240
ggttgacttg tcgcggcagt gtagcttgaa agatatattt tcattgaagc ttctcgacaa 300
taactttaag ttggcgtgtt ttaatgatgc cttgttttt 339

<210> 4457

<211> 451

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-038-Q1-E1-F4

<400> 4457

gtgacgggtct agaattcacg ggtcgacgca cgcgtccgac cagcagtcg ggaacgaaag 60
agctcttttg gccagttaag tcaaaatcgc agcagtcagc ctggtggcag tcattcacta 120
agattccttt cgcgtcgac agttttgatt tcgacaagta tgcataata ggtttcagaa 180
ctacgtgtat aagcctaaca tccggatggg gtgttccact cattctgatg tatctttata 240
gcaacgcttc ggaggacaac aagcaggaat ttgtccaaac ttgctgtttt acacacgact 300
gaactcgaag gacggtggcg ctttctcagt tcattaaaga tttcctcact taatcttttc 360
aattcaaaat acaatgctat attgcttcaa ctacgcgtca tagatttgaa tcgttcgaaa 420
agtaaattca gccgttcagt ggacaacgac g 451

<210> 4458

<211> 454

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-038-Q1-E1-G2

<400> 4458

atttacgggt cgacgcacgc gtccgtatga cacaaggcac gcaggtttat acggtggagc 60
 aggttgcaaa gcaccacaca cgtagtgact tgtggattat catacacggc aaagtatatg 120
 atttgtcttc gtttttagat attcatcctg gtggcgacca gatactttta caatatgcag 180
 gtgacgacgg taccctggaa ttgacaagg cagggcaccc agaagaagcc cagttattat 240
 tgcaagatta ctgtattggg tccgtaacga gagatttgtt tttagaatgt gatggtttag 300
 taaaactgac tccccaaaca agtgtctgga gaaagtgtg gcgatggatg gacacctcgg 360
 cattggatag ctttcattgg ctgttggttac tcgttgaat tgtttctgtc ctgttgattg 420
 ttgctcattt ttgaaatgga tagttgttgt acat 454

<210> 4459
 <211> 433
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-038-Q1-E1-G4
 <400> 4459

attcacgggt cgacgcacgc gtccgaaaag aaaatggatt cggtagtga actatccacc 60
 aagcaactgg acctctttgt ggagtcagga aagcctgctt ctactagttt gacagttgaa 120
 aatatttcta aaacttgtat atgtttttaa gtaaaaacta cacagccaca aagatactca 180
 gtacgtccaa gtgtangggg tatcaaacca ggcgaaaaga aggacattct aataactctt 240
 gaacctctca aagagatacc ggaagatcta aagtcaaaca aagacaggtt cctactacaa 300
 gttgcaagaa tatcgacaga tgcagccaca acagacgttc acgagttgtg gaaaagagta 360
 aaggaagact ccgtgctgca gcagaaattt cgagttcagt ttgtattagg tggacaaaac 420
 gcagatattg gct 433

<210> 4460
 <211> 388
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-038-Q1-E1-G5
 <400> 4460

aattccccggg tcgacccacg acgtccatct ccttgcgagg aatttcttgc ggggccgaag 60
 actcgctttc ttgttttgtg gtggttgtcg ctttttgtct ctcaagtttt tgccgaaaat 120
 ggttcaacag tggagagcag caggtctcac ttatcttctg tatgcaaata tatgtgcaga 180
 ttttgttcgc aaggcactaa aggaaccgaa aagaactgaa gcattgtcga ggaccggttt 240
 tgagatgacg agaagcgagt ggagtgaagg caaggttgtg aagagagaga cccttacaca 300
 agagaatgaa actagtaacg tcgccaagag taacaagtga atgtgtttgt tgtaatanac 360
 gtctagaaga aggcgtacgt gtcanaaa 388

<210> 4461
 <211> 208
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-038-Q1-E1-G7
 <400> 4461

cgggccgacc cacgagtcca agtaaaagaa gaaagagaaa ggaaaaaact gagtatcagg 60
 aagaaaagag ggagtagatg aggaaagaaa gatcaaggaa gtaagagtaa gagaaggagt 120
 aatgtgaatg aaagcaggaa agtattttgaa gaagagagtg taaagcgcgt accttttgca 180
 taatgtccca gcgagtgaaa gaggaagc 208

<210> 4462
 <211> 441
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-038-Q1-E1-H1
 <400> 4462

attaccgggt cgacgcacgc gtccgaccac acagtccggt ttaccaccca atcttctcag 60
 ctctcatatg gatgtggtcc ctgtagagac tcgaagttgg acaatggatg catttgctgg 120
 gatagtggaa aacggtacaa tgtatggaag acgtactcag gatatgacga gtgttaccat 180
 tcaatatttt caagcacttg gaaacctatt acagcgtgga tggaagccag atcgaactat 240
 tttggtttcc gtagtgcccg atgaagagat tggagggacg caaggaatgg gagtgtttgt 300
 agaatcggaa gaattccaga aatggaatat tggttttgaa ttggatgaag gattggccaa 360

tcctgactct tttatgtggt tgtattatgg tgagcgacag ccttggtggt tagttattgg 420
agctatcgat cagcctgcac a 441

<210> 4463
<211> 413
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-038-Q1-E1-H11

<400> 4463

cccacccgct cgagtatata ttgatgacaa acaggaagag tttctcagcg ctttaggatt 60
ggtgtgtgta taaaagcgac aaaggtctgg ctttgaagta attttccgct tccagaactg 120
caacagccta tttgcactag agtgtagtat ttgttagaaa gtccataaaa agttgacctg 180
ctaattgcat tgtttgtatg ggaagagtcg cgtcattttg tattgtcggt cacaacaagg 240
ttcatctttt gatgtttttt cggttcttaa gagttagtgc agtggtgaga agtagcagta 300
cttttgggtg gagagccaat ttcttgtctt cttgtttaga gacatcctct cttgtcaact 360
catgtgtctt tcgattctgt ggagttgctc tacgaaagaa gaaacttttt ttt 413

<210> 4464
<211> 415
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-038-Q1-E1-H12

<400> 4464

accacccgt caaacgtcca atatgatgca cgcaaagaag tgacgcagta catcagagag 60
tgaacacatg caagtatgta aatccagtca gatagtaaag cggctacgtt caatagaagg 120
cgttatttat tttgacaaaa atcaatcaga agtggatggt ttgagtgttc atagttttga 180
taccgagtct tctggtagag ctgtgacaca cgagctggag cgtactggaa agagtgagca 240
gagcaaaata gtaacgcata cctctgaaaa cagcagaaga aaaacaaaga gaccttggac 300
cgcagaagaa gacgagaaat tggaggagtt ggtgaaacag tacggtagca gcagacagtg 360
gagtttgatt gcttccaaac taggtcaaag aagtggaaaa cagtgcagag aacga 415

<210> 4465

<211> 358
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-038-Q1-E1-H2

 <400> 4465

 cgggtcgacg cacgcgtccg accacgagtc cgggcggcaa ggagcaagaa gaacgtcaaa 60
 aggcaataga agattttccgc agtggcagaa aggacgtcct agttgotacg gatattgctg 120
 cgaaggggtt agatttttccct caagttcagc atgtcatcaa ctacgatatg ccaaaggaca 180
 ttgaagacta tgttcatcgc attggacgaa ctggaaggcg tgggaaacgg ggtcttgcca 240
 ctacttttgt caactccacc tgtaatatga gtgtattatt agatttgaaa gaactttctca 300
 tcgaagccaa acagaaagtt gcaccctttt tagaaaattt ggatgtgcac aactttgc 358

<210> 4466
 <211> 450
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-038-Q1-E1-H3

 <400> 4466

 ggggtcgacgc acgcgtccga ccacacgtcc gatcacttgc acaaaagatg atgatatcca 60
 agtgcaatgt aaaaggggaag cccgtgatta cggctactca aatgttggag tcgatgatta 120
 agaatcctcg tcctacgaga gcggagacga cggatgttgc caatgccgta tttgatggca 180
 gtgatttgtt gatgctttca ggagagactg ccaaagggtga ttatcctgta gagactgtac 240
 agacgatggt tggcaattgt cgtgaagcgg agagttgtat tgattacaat tataatttta 300
 catgttttgcg caatttgatg agacaacaaa agccttctat caccgaagtg attacttctt 360
 ctgctgttcg aactgctttt gacttgcacg cctcgctcat tctttgttta acggagacag 420
 ggacgactgg tcgtttggta tgcaaatatc 450

<210> 4467
 <211> 419
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-038-Q1-E1-H4

<400> 4467

gcgtccgacc taatccattg tcttcatggc tagtggctcc aagagcacca agtccaacga 60
aaaagtccaa atcacaaaag aacaagagga agagtttcgc gaagctttta cgttattcga 120
caaagacggg gatggtaata taacagtaaa ggaactcggg acgggtgggtcc gttccttggg 180
tcagagtcct acggaagcag agttgaaaga aatgatagca gaagttgaca aggatggaaa 240
cggcaccatc gactttcaag agtttctcga cttgatgtcc aggcataatga gacaagcaga 300
tacagaagaa gagatacgtg aagcgtttta agttttcgat aaggatggaa acggttatat 360
ttctgccgca gagctgcgtc atgttatgac cagtttaagc gagaaactta cagatgaag 419

<210> 4468

<211> 428

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-038-Q1-E1-H7

<400> 4468

cgggtcgacc cacacgtcca gagagttttc gtgcaagtta tggctgcgtt ttgcgctggt 60
tgcatacttg tctcaagaag caacagttcc aaagagtgat tggtagcgtg gaattctgta 120
aggaaccggt agttggacaa aaaagtgcaa cacaggcacc tacggtccaa caaagcaccg 180
attcaciaag ctcaagtttg aatggattta gcaacgagcc aatggatatg aatgagtgga 240
aacgtaaata tagtaatacg gacacaagaa cggaagcact tccttgggtc cgggagcact 300
ttaatccatc ccaacttcct ttgtgggtatt gcaagtacaa gtataacaac aagttggaaa 360
aaacttcatt tcngcgaatt tggatatctg atggtttcaa agattggagc cttaagaaa 420
gtatgctt 428

<210> 4469

<211> 415

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-039-Q1-E1-A10

<400> 4469

cccgggccga ccacagacag tccatgctcg tccttggcca ggtattttta gaacgttatt 60

gaatgatcat cgaagatttg aagaaaccta ttttcatcca tttcctgggtt attactatac 120
 tggagatggt tgtgtaaggg atgaagatgg ttgttattgg ttgagtggaa gaatagatga 180
 tgtgattgga gtaagtgggc gtcgaattgg aacgaccgaa gtagaatctg ctcttatttc 240
 tcaccctcat gtggctgaag ctgctgttgt tcctgtgccg catgaactga aaggacaagc 300
 tgtttatgct tttgtcactc ttcgagcaaa tatccaacct agtgaaaact tgcacttgga 360
 gttgcgacaa gtagtaagag aaaagattgg cgctcatgct gttccagaaa tgatt 415.

<210> 4470
 <211> 428
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-039-Q1-E1-A12

<400> 4470

ggtactagtc cagaattccc gggccgaccc acgcgtccac ccacgcgtcc ggagcttccc 60
 ctggcggacg tttttttcgt gaagcaaaca acaacaacaa caactatcgg tcgcgcaatg 120
 cttacagtga aaccccatca caacttggtg aaatgggtat ttttcaacat ccctgcgaga 180
 acgaactagt ttgtaagagt accaacgaaa agatcccgtt ttttaacgct ccaatatttc 240
 tggaaaacaa gacgcagatt ggcaaagtgg aggaaatatt tggtcctatt acagacgttc 300
 actttactgt aaaaccagtg gaaggtgtat tagctacttc ttttggtgta tgagacaaat 360
 tctacatcgg ctacagaaaa ctgctgccgc ttgaaagatt tcttccaag ccacctggta 420
 gtcagagt 428

<210> 4471
 <211> 182
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-039-Q1-E1-A4

<400> 4471

agagatatat aggtgtaggg tgaagtgggt gctagtttct tgaatgcttg gttttgcatc 60
 aagttatata ataagtattg caatagctcc ataaaatcgc aatactagtg ttcttttttg 120
 gttaaaacaa gtctcacaga acagttgaaa gctcgcttgg tccaataaaa aagaaaaact 180

gc

182

<210> 4472
<211> 202
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-039-Q1-E1-B1

<400> 4472

cgggctcgagc cacgcgtccg cccacacgtc cgcccacgcg tccgggtcgt agcgctatatt 60
ccctggcttt attttcgacg gatgaatcct ttgattccga cgaggaatga ctgcttcctc 120
aacaactagg atcgcggtga aagaagatat ccaaagtttc tttctagata tatacggtaa 180
agataaattc gaattgattt gt 202

<210> 4473
<211> 424
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-039-Q1-E1-B10

<400> 4473

gtactagtct agaattcccg ggccgacca cgacgtccga tttaatcggt caagagacac 60
acgactagaa aagcttacgt tctgtagatc tacgagtcgc aactattcac caatggaatt 120
tcctgtacaa aagctacagg aggaagagaa agaaacttta atagacactt tgccctatgt 180
ggaagaaaac ctcttggaag actcagaaac ttctcgaaag gtcgctagcc tacttgagca 240
ggaactgagc caagtgaaga agaagaaatg ggaggaacaa cagacacagg ggtttctggc 300
aaacaccttg gttggaatag aagttcaaag aatggaggac gggttgccct cggagtatga 360
aaatcctttt acgagatacg aagtttctca cccgaatatt acanaacaag gggatttgaa 420
cacg 424

<210> 4474
<211> 430
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-039-Q1-E1-B12

<400> 4474

gtactagtcc agaattcccg ggccgaccca cgcgtccacc cacgcgtccg gaacgcaacg 60
cggcgcattg aaaattcatg atgaagttgt tcgtagaaaa ctcaaagtat ccgttggttg 120
cattccaaag acgatagata acgatattgc acttattgat aaaagttttg gattcgatac 180
agcagtagaa gaagcacaac gagccattcg cagtgcagtt gttgaatcga aaagtgccca 240
aaacgggtatt ggcttagtga agcttatggg taggagttca ggatatattg caatgtatgc 300
aactttggct tcgcatgatg tggatatttg ttgattccc gaagtatctt ttattttgga 360
aggaagttgt ggtttgtag aatatatccg cagcttggtg aaaaggaaag ggcattgcgt 420
cattgttgtt 430

<210> 4475

<211> 413

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-039-Q1-E1-B2

<400> 4475

ccgggtcgag ccacgcgtcc gaccacacgt ccgaaaagac tcaagtaatt gtatatttgt 60
ttttggttgt gttgctgtan ggcaaataatg agttcctttg atccggacaa gttcaaacaa 120
gaacaaaaag ctcgctggaa tcaaggagct ttatccacgt ggaccctgtg gaaaaaaact 180
caagtagaag atactccagc aaagttcttc ctaagcctag tacctattcg accaggagtg 240
aaaatcttag accttgctg tggtagtggg gaaacctccc ttcaagttgc tcacctagtt 300
tccagccact taaaggatga agccaaagac gcaaagatag tttgcgttga tatttcggac 360
gaaatgctta aagttctcaa ccaaagagca caagaaatgg ggctaacaaa tat 413

<210> 4476

<211> 404

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-039-Q1-E1-B3

<400> 4476

gggtcgagcc acgcgtccga gagcatatgc cgtcctcctc ttctagcgat cattcttttc 60
 ccggaactaa aaaaaagttt ggaaaacttg ggcggttccg aaaaaggccc cggatatatg 120
 agaaaaagaa tggcagtaag gtttcctgtt aaaggcagtt gaaacgaaca acaaacaagt 180
 gtgggataat tccaattcaa gtaacgcttc aaaacggcaa agtgaagatg gctatcaagg 240
 ggaaaacaaa acctagggat atatccaaag agttatttcc tgatttagcc aagagagcta 300
 tagtggcagt ggtcaacgat aaactgtggg atctgaatag acctctagaa gaagattgta 360
 gcttgaaaat atgtgacttt gaaactccag aaggaaaatc agta 404

<210> 4477
 <211> 281
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-039-Q1-E1-C1
 <400> 4477

cgggtcgagc cacgcgtcca attcaagtgg ttagaaaaa gatattatta cacacgnaaa 60
 aaaatggata tttggctagc aatccttgag gaatacgtgg cctatccttg atcgacaatt 120
 atttcaagta tctgatgac aaatttatcg aatacaatgc gaaatgagaa agcgagtggg 180
 tgagttttcc gatgaaacgt ttgccaccga atttacaaga cacttgctct ttcctcgtea 240
 ctctacttga gtataaagaa tttatgtttt atattccgtg g 281

<210> 4478
 <211> 395
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-039-Q1-E1-C11
 <400> 4478

acggtcagga attcccgggc cgaccaagc gtcagggtt ctttcacaat gtttcaactgc 60
 tgactgtata ttcaacttgct attgttcacg tatacttccg tgagggttg agcttgcggtg 120
 ttttgtcgtg catagtacac ctagagattc tggaactgga agtttcgaag atctttgagc 180
 aagtcccaac agaattgacc tctgcagatg cttttcatte ccaagaaatt tcaactgagtg 240

aacaatttca tatgcagcgt gagttttttc cttacgcaaa ctatggacgc atttttactc 300
gaagatttga gctttgtctg tgaacaccag agtcagaata taatttatcc atgtaaagtt 360
tgccgctttg ttcgtaagtg aatgacactg tgtgt 395

<210> 4479
<211> 206
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-039-Q1-E1-C12

<400> 4479

gtactagtct agaattcccg ggccgaccca cgcgtcaaga gttggccaag cacgcagttt 60
cggaaggaac caaggcagtt acaaagtata cttcttcctg aattcaaggt tgataaatag 120
actagcgtac aagtgttttt gtgtgttttg aaaagtttgt atggttgaaa agcgtcgatg 180
tacaacgtaa aaagaaagtt ttttat 206

<210> 4480
<211> 419
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-039-Q1-E1-C3

<400> 4480

gggtcgagcc acgcgtccga tccaatgag caagtctacc catatattct tcggtgcctt 60
tcttgttctt ctcaagaagaa tatgtatctc ttcagctgca tgttctgact cagtcattgtc 120
tcagatgcaa agtatttttg tcaagaattt cactcaaaat cgtgcattag ctccattatg 180
ccttagaggt gcttttcacg attgctggaa tggatgtaac ggagcactgt tgcttccaga 240
ggaaataagt agagctgaaa acctcggtt ggaacctcta aaaccatatt tggaaccatt 300
tctcagccag tttccttggt ttagtgtagc tgacctgatc aactcttgcg ccgttacagc 360
tgtaaagttc ctaagtgggc cagatgttcc tgttactttt ggcagaatag ataccggag 419

<210> 4481
<211> 401
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-039-Q1-E1-C4

<400> 4481

acgcgtccga agacaactat tctcgtgctc catcggtttc tagccatgtc tcagagaaat 60
tattgcgaaa tagcaatact tctgagtttc gcgagccaca cttgtatcga gactctcaga 120
ataatccgga gaatactttt ttgacagatt tacctgcgaa tgaacaagaa aatatgagac 180
ggctatcatt tcgagattgg agtctcgag agtcactcga tactgttact cctgctgtat 240
ctagaccgat tgctgttcat ggaccaaatt attcacctca aacgacgaca agagaagctg 300
ggtcggatat ccgagcggaa cgtgaacttt ggcaacggaa aggacatttg gtgaagtttt 360
ggcgacgacg atttgctgct atactaccac attctgtttt t 401

<210> 4482

<211> 404

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-039-Q1-E1-C5

<400> 4482

cgggtcgacc cacgcatcca gcgtggagat agagcaacgg cagcacaag tttagaactt 60
cgagttccgt ttcttgatag agactttctg gatgttgcaa tgagtattca tccgcgtgaa 120
aaggttactt ctaagcatag aatcgagaaa tatatcattc gttatgcctt ttccaaggag 180
ttttgtggtg aagagtatct tcctgacgat attctttgga gacaaaaaga acagttttcg 240
gatggcgtgg gctatagctg gatcgatggt ttaaaggcgt attgtgaaaa ggccgtttcc 300
gatgcagact tgcaaaatgc cgctcagcgt tttccgcacg atactccaac aaccaaagag 360
gcatatgttt atcgagctat attcgaaaaa cattttggga attg 404

<210> 4483

<211> 323

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-039-Q1-E1-C6

<400> 4483

cggtcgaccc acgcatccac ccacgcgtcc gcgtagacgt cgtaccaata ttccgcccac 60

actctacgtg caacttatct tgtgacatac aatcggttgg canagttata tgctagcgta 120
tcatagatgg tacatgtgta gaagatgtca gcacatgttc ttgcggcttc agcattacaa 180
tggagtttct atcaaagat tacaatcaat acttgatgg ctggtttaaat gatgataagt 240
ctgtcaatgt ccaggataat agatcttcga aatcgcaata agggtaagga agaaaatcct 300
ttggctagga taagtaagga aaa 323

<210> 4484
<211> 235
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-039-Q1-E1-C8
<400> 4484

cccacgcgtc cgcccaggcg tccgaggtac gatattttgc ttggcttagc tttattatgg 60
ctgtagcata tgcttccaac tcccgtttct ctcaagtata cgtgaaacag ttggtatctg 120
cagttgggtc aagtatcggt atcttggtga tategtattt gtcaccctct cctcctctc 180
gtccaactgc ataaaagtttt ttcattgttcc aaaagccgtg aaggacatca ataata 235

<210> 4485
<211> 416
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-039-Q1-E1-C9
<400> 4485

ccgggcccgc ccaaactgca acccagcgt ccgaaaacgt gtgtagcaag cgtagagcag 60
aagaactggg tgtaaaggct gagtagtaga gtaagtgtaa aagggaaagg aaaggagaga 120
aagaggaaag ggatgaaatg cagagatctc tagagaaagg caagaaagaa aagaaaggaa 180
gacacagtaa atgaggcgag aaagcatagg aagtgaacg gattaggaac ccgtgtagtc 240
tatgcagtaa aagaaagaat gagtaagaaa aaagggagtc attccaccag gggagtaaag 300
gcgcaagaaa gaaacccaaa gcaattgacg ggaatcgga aaaggggtgg atcacgtaaa 360
ttaatccgat gtaaaccgag aaacttacct ctccaagaaa gtgtttcacg gctgtc 416

<210> 4486
 <211> 414
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-039-Q1-E1-D1

 <400> 4486

 cgggtcgagc cacgcgtcca agaggagatg gtaatgataa tagcatgtat ggtagtccat 60
 tggagcaatt tgaagtggta tcgctgtata agatggagat agaaggaacg gaaatacggg 120
 taagtaacat acgagtgtat ataataatga tgagtatagt atgggtaaag aagatggaga 180
 ggaggataat gaagaagaac gggacgtggg agtggatacg agaggagtat tacagagtga 240
 taggaaggat agtaaaggag aatgtacgag aggagaggta tataaggaag gattacatga 300
 acgacgagat aatatgagaa atgataacgt ggatatatat atcgataata agtgtggagt 360
 aaacagaaaa cgaagtaaaa cgacggaatg aacggaagtt atggcaaaaa cacg 414

<210> 4487
 <211> 412
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-039-Q1-E1-D10

 <400> 4487

 cgggccgacc cacgagtcaa caaccacatt gtttgcaacg gaaatgattc gatgacttat 60
 gatgaccctt cagtagttct tccaaccagc ggtaaccctc aactatccta gtgaaaaagg 120
 acctctttct cctcgtttta gaggggaaca tgctcttaga agatatccat ccggacagga 180
 acgctgtata gcttgcaagt tatgcgatgc aatttggtcca gctcaggcaa taactatcga 240
 agcggaaacct cggcctgatg gttcaagaag aaccacatga tatgatattg atatgacaat 300
 gtgcatatat tgtggtatgt gccaagaagc ttgtcctgtg gatgccatcg tagaaggtcg 360
 caattttgag tatgcaacag aaacgcacga agagttgctg tataataagg aa 412

<210> 4488
 <211> 414
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-039-Q1-E1-D11

<400> 4488

aattccccggg ccgacccacg cgtccacgag aagttgtaaa acttggtgtc agaaccaaga 60
aacatttacg agaacaaagt tatgcattta ctgaccaaga tgggtggtaga acaatgcaac 120
tgggtatcaga gttcctttgg gacgttttga aattcctttc gacagatcct cagactgaaa 180
tatcagcact agttcgagaa atattgaagg atatgagcag tagctctagc gaggagcaaa 240
tgcagcgtgg aagcgttgcc aaaaaatcca gtgagcatat ggatgtcgca tcgaacgcat 300
cttccttgtc ttcacaccca ggttctttgg aagaagtcac gcatagtaga aaggattctc 360
ttccgagaag ctgaattcc atgcctcgtg tcatgtcgat agaaggaata agtc 414

<210> 4489

<211> 430

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-039-Q1-E1-D12

<400> 4489

aggtacaggt ccagaattcc cgggccgacc cacgcgtcca attcgcttgt ggcgtgtgaa 60
gttttggtta ccttgaaata atgcagatat ttgtaaagac acttacaggc aagactataa 120
ctcttgaagt ggagccttca gatactattg agaacgtcaa gtccaagata caagacaagg 180
aaggaattcc tccagaccag caacgtttga tatttgctgg aaagcaacta gaagatggtc 240
gtactctttc agactataat attcaaaagg agtctaccct tcaactggta atgcgtttga 300
ggggtggaat gcagatattt gtgaagacac ttacaggcaa gactataact cttgaagtgg 360
agccttcaga tactattgag aacgtcaagt ccaagataca agacaaggaa ggaattcctc 420
cagaccagca 430

<210> 4490

<211> 439

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-039-Q1-E1-D2

<400> 4490

gggtcgagcc acgcgtccga gttgatggtc gtttccaaga tggtcagggt aaagtagaca 60

ccaaaaactcc aagtatgttt ctcgatattg aaatgaaacc tggttgtgta atgaatccac 120
 aaatatctca cgaatctcga tgctttatat acgttttaca aggcaaagct ctatttgga 180
 aagatgcttg tattggaagt gcacacgagt tgttgctatt ggatggagaa gaagatcata 240
 tcgtgtgtca aagcaaggaa gacagctgtc gatttgtgtt ggtagctggg aaacctttga 300
 acgagcccat cgttcaatat ggaccttttg tgatgactag ccaagaagat attatgaaag 360
 cttttcgaga ttatcaaact ggaaagtttt aaaattgccg aaataaaacc atttgtgtat 420
 tcccaactaa aaatgtgta 439

<210> 4491
 <211> 349
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-039-Q1-E1-D3
 <400> 4491

cgggtcgagn cacgcgtccg accacacgtc cgggagcgac caaatcagct caacgtagaa 60
 gaagactgaa ccaggaaaag tatcaaattc gattggctat tacgccgtat ttacaagccg 120
 aacatgaccg tttggaagtg aaagagacgc atcgtcgtct tcggcaagaa gcagaactta 180
 tgaaggatgt tcctgaatat caaccgggag aaaatttga caaaacaaga aagtttactc 240
 cctatgtcaa accgctagta cctggagttg gtccacaagg actttgacag ttatctaaag 300
 tgatggttgc caataaagct ggaatggagt ttagttttgt gcacaaaaa 349

<210> 4492
 <211> 371
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-039-Q1-E1-D4
 <400> 4492

gggtcgagcc acgcgtccga gatcacaaga agcagcagta ttagcacatg cacagtcatt 60
 gctcgagttt catgcacgtc atcaagtaat gtggaaagtt ttggggttcc acccgagtaa 120
 aaggaatggt atcaaaactt tatgtagttc gggttgtgaa tgaaggttcc tagaatgac 180

tgggtactaat gtttgcagta gtaaaatggt gattacttgc taatgggaag acacgcgagt 240
 tggccaatag gtogatatag tgttattgca ggtttcatgg aacatggcga aagtatagaa 300
 gatgcaatth atcgagaagt aaaagaggag acctttattc aagttgggtcg ttgtcgggtat 360
 cattcttcac a 371

<210> 4493
 <211> 407
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-039-Q1-E1-D9
 <400> 4493

tcccgggctc gaccacacg tcagacttga tggacagaat gggaagaaga gtgctgtggt 60
 taagtttatt accaggagtg ctggttgat gtttcattat aggctttagt ttccgagcta 120
 gcaacatcca tgtcgaagaa ggaatttaca tttgggggtat cataacatat tatatgtttt 180
 ggggttctgg tatgggacct tatgcttggg tactgggatc ggaaatatat ccaacttata 240
 ttcgaagtga aggaatggcg ctagttactt ggtggacata catttgaaaac tttattacga 300
 cttattgctt ttccaagatg aaaagagcaa tgactgctcc aggaattttc attgggtttt 360
 atggagggtt tgttactatt gcttgggttct atgccatgtt tatgatg 407

<210> 4494
 <211> 410
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-039-Q1-E1-E11
 <400> 4494

ccgggccgac ccacgacgctc aggtcggcag cctgttgagt tatcggaggt tgaaacgtcc 60
 tggaagaatt ttgcaaatag agcagtcctc aatgagggtc cagtttttca atgcaaacct 120
 gtttcaggaa tccatgtgaa tcgtattcca aggagtcttt tgcttcttgg agacactagc 180
 aacccttcga gctttgttga gatcgcgaaa cattgcgatg gacttggttca tgaagcgacg 240
 ttcttgaag tattgcggga taaggctgct gagtcgtttc attctacagc aaaaatggca 300
 ggacaatttg cgtcatcact aggaacaaga aactgattc taactcattt cagtagcaga 360

tatgaaacca actttttacaa gtcgaatggc caagtttttg acgaaacttg

410

<210> 4495

<211> 432

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-039-Q1-E1-E12

<400> 4495

ggtacaggtc aggaagtccc gggccgaccc acgacgtcag gtggaaagaa gatgcaaagt 60
gctttgaaag aaatagccga ctatatggtg acacctggaa aaggatatttt agcatctgat 120
gaacctcccg agttgttaga acccaagttt cgagcttttg gagtggagaa caatgcagaa 180
acgagaagga cgtggcgtga aatattatat ggaaccaaag gattggagca atatgttgca 240
gctgctattc tgcatagtga aacttttgaa caacaagatt catccagtgg gaaacgtttg 300
gtagatgtgt tatcagacaa aggtatatta cctgggatca cgggtggatca aggtttcgat 360
atattacctg gtacctccca agaaacattc acgctaggat tggatacttt gagcaatcga 420
tgtgagaaat at 432

<210> 4496

<211> 440

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-039-Q1-E1-E2

<400> 4496

cgggtcgagc cacgcgtccg cacaagtagg cacagaagag aatatttctc atcagggtac 60
aatagtagaa gaggcaacgt cggaatcttt aagtgaaaaa gaaaacgaac aagggtgcgta 120
tgagcaagaa gaagcagaag aagatagcca tcaacacaca catgaaggag gacacgcgca 180
tgaacacaca gcagaagagg gaacaaccag acaaagcaaa gcggagaaga aatctagaaa 240
agctttgcag aaattgggtt taaaatcagt ttcagggtgtt acgagagtaa ctatcaagaa 300
gaacagaaat attctgtttg ttatctcccg acccgatgtt tacaagtcgg ccgggtcgga 360
tacttatgtt atttttgggg atgcaaagat agaagatctg tcagttgctg cacagactgc 420
tgcagctgaa caatttaaga 440

<210> 4497
 <211> 399
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-039-Q1-E1-E4

 <400> 4497

 cgggtcgagc cacgcgtccg attcagacag tgtagagtct cacaagtcgt ttgccgatga 60
 acaaaagttg acgtttccct tattatctga tgaaggcggg aaagtacgca agctatacgg 120
 tgtaccaaag agcatgttta ttatgcctgg togetgcact tatgtcattg gtccggatgg 180
 tattgtacga cacatctaca acagtcaagt acgtttcgca aaccacgtgg aggaggcaaa 240
 gaaggcggtg gaaaagatac gaaacgacgc tcaaacagca gaagagtga cacactagac 300
 tgctttgtgg tttctttgat aagaagaggg ttccagtcac gtgcttcggc tgggtgtggca 360
 agttactttg ttagttgtgt tgaataaacg tttgttttt 399

<210> 4498
 <211> 431
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-039-Q1-E1-E5

 <400> 4498

 aattcncggg tcgacccacg catccgagga gaaacaagaa gtagaagaga aataaaagag 60
 acagaagagg agttatgaga gaaaagatgg aagtaataga agtggttaagt ggagtaataa 120
 tgaatcatat gaaagaagga atggagaata taaggaagga ttacatgaag gaggagataa 180
 taggagaaat gataaggtgg atatatatat cgataataag tgtgatagta atataaagga 240
 ggagatagag aggaaagagg tgtatgatgc aggcaaagaa gtgacgcagt agattagaga 300
 gtaacacatg caagtaggta aagcgaacgg gtgagtaaag aggtgtgaaa gagtgggaaga 360
 acatgaaagc acagaagaat gtaagaaatg gttagagtaa aaaccataaa ggaagtaaaa 420
 gcgggaatct g 431

<210> 4499
 <211> 467

<212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-039-Q1-E1-E7

 <400> 4499

 gtaccagtct agaattgccg ggtcgacca cgcacccgag aaggatattc tgcactacta 60
 tggtttgagt acaaaaggag ataggaatgc gcttattagg aggcataaag aattcggtta 120
 gtaagttaca attcaagcga acatcatctg agtagattct caagtctttc gctataatgc 180
 tgagctggat tcaaagttcc ctgcctctgt ttcgtccgtc ataaaggata tcgaagaatg 240
 ggagaagcaa caggagtggg tgaatgtttc tgaggaagcg tctaaacttc cattaggaag 300
 gccactccct gtcaataatg atgcctgtca cattgtcacc agtgatttcg aatcactcgt 360
 ccagcaagca aagagaacaa gggtaaagac gggaaacaac ttttgtgcgt caaactttta 420
 tgaagaaagc atgggtcaag atgatatac agtgtttact caacaag 467

<210> 4500
 <211> 454
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-039-Q1-E1-E8

 <400> 4500

 attccccggg cgacccacgc atccacaaag tggagaagggt ggtagtttcc gaaagacttg 60
 cggaatctcc atgtatcctt gttactggcg agtttggttg gtcggccaac atggaacgta 120
 tcatgaaggc acaagctttg cgtgattcgt ccttggaat gtacatgtca tcgagaaaga 180
 taatggaaat taatcccaac aatgccatca tgcaagaatt gcgtcgccgt gtggaagcag 240
 acaagtcaga caagaccgtg aaagacttgg tcaatttatt atttgacact gcattgttga 300
 ctcccgatt ctctcttgac gattccaacg tttttgctc tcgaattcat cgcattgatta 360
 agttacgtct tagcattgac gaagatgaag tcacagaaaa gatggaggaa gatttaaccc 420
 ctctcgagac cgaacaggaa ggaacgtctg cgat 454

<210> 4501
 <211> 413
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-039-Q1-E1-E9

<400> 4501

ccgggcccgc ccacgagtc gagaacacgt agaccgggag attcgagaga aattcgaaca 60
agacttagta agagcggaca gggaagaata tgcttgctt ctggaagaaa ataaccctcg 120
tcatttcctg gcgcttatca tcctgtggga tcagttccca cgaaatatgt tccgtaaaga 180
cgcaaaagcg tttgcgtggg ataccaaagc gtttgcgtta tcaaagcagc ttgtttcttc 240
gtctttggac aagaagcttc gtccaatcga gagggttttt gcttatatgc cgttcgagca 300
ccaggagAAC ctacaaagtc agtctgaggc aatgagactc tttcaggaac ttaaagagga 360
aacctcgcgg attccgatg aagcaaccaa ggccaagtgc acagaattca cag 413

<210> 4502

<211> 186

<212> DNA

<213> *Cyanidium caldarium*

<223> Clone ID: LIB190-039-Q1-E1-F3

<400> 4502

aggacacgtg ggccggacgcg tgggcccgcg cgtgggggaa aggagagaaa gagaaaagga 60
atgaaatgca aaaatctcta gagaaaaggc aagaaagaaa agaaaggaag acacagtaaa 120
tgaggcgaga cagcatagga agtgaaacgg attacgaacc cgtgtagtct atgcagtaaa 180
agaaaa 186

<210> 4503

<211> 189

<212> DNA

<213> *Cyanidium caldarium*

<223> Clone ID: LIB190-039-Q1-E1-F5

<400> 4503

accacgcat ccgaccacgc gtccgattaa aaaaaaaaaa aacaaatata aaaaataaat 60
gaaaaaaaaa ataaatgaaa cagaaggcaa tgcgatcgct ggggttagtc attggtacaa 120
cttcgatcaa aataccagtt cttacttgc tgcacatag tttcaattcg ttggcaatcg 180
tatttcttg 189

<210> 4504
 <211> 292
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-039-Q1-E1-F6

 <400> 4504

 atgcccggt cgaccacga gtccaggtag cagttgtaca ttcaacatca tcaaagcca 60
 aaggaggaa agaaagattc ttcaaagaaa gaagccacaa gtaaacctgc agcagcagat 120
 gctacaaaga cgacagaaaa gtctgggtccg gaagccaagt tgaagggaac tgggtgcaaag 180
 aaacaataaa aagttgacta tgcattgtgca gtctgttat gttttgtgag ttctgtttga 240
 tagtttccag ctattctttt ggtagtgaat aaagagaaaa ttttttatat tt 292

<210> 4505
 <211> 287
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-039-Q1-E1-F7

 <400> 4505

 ccgggccgac ccacgcatcc acccagcgt ccgcccacgc gtccgcccac gcgtccgaga 60
 gaattttttt tgaagggtgt taccgagaac ccgtgtgaag agctttggag agcttacgag 120
 agatgtgtaa agagactggc ttcttccaga aatcttgaac agctattgac ttcagactgg 180
 aatgtggacg aacaaaaagc tgcctacttg acactcgtgc attccagtgt agataggacc 240
 acgaataaaa aattgtttac ttgaaaaaaa aaaaattttt taaattt 287

<210> 4506
 <211> 409
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-039-Q1-E1-F9

 <400> 4506

 aattccccggg ccgaccacg acgtccgccc acgcgtccgc aaaaaaagg aaaaggatgg 60

cagcagcagg tcctggtgcc tttagaccttt cgggtttagg accggaagac caaggcaagc 120
 ttatggctgt tatgcaagat cttcagatac aagattctct taggctatac aacgaacttg 180
 tacaacgttg ttttggtgaa tgtgtcgaaa cttttagaag taaaaaactc gatggaaagg 240
 aagaagcttg tgttacgaag tgtgcacaaa agtttgtgaa aatggctgct agagtaggac 300
 agagattcgc agaacagcaa cagcaacttg ttgcagaagc gcaacgagga tccacgccgt 360
 cttcctgaaa taaatgtgaa ccaactgata gaggatcctt ttgtttctt 409

<210> 4507
 <211> 309
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-039-Q1-E1-G1

<400> 4507
 gggtcgacgc cacgcgtccg accacgcgtc cgctagcaca acacggattt gcacgcaact 60
 ctatgtggca cttgaaacaa ataggtacaa cgaaagatgg ctacgccact ggagtcgtgt 120
 tgtctttatc ttcaaaagat gtggatgctg catggacctc tgcgtggcct tatgctttta 180
 ctgcccaata tcagttgtta tangggtttc aagggtccaca aacaattttc ggggttcaaa 240
 ttgagggaaa ggatcctttt cctttaactt tggtttttca aactaatttg gaggtaccga 300
 agttcccaa 309

<210> 4508
 <211> 400
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-039-Q1-E1-G11

<400> 4508
 gtacaggtct agaagtcccg ggccgacca cgcgtccaat caaagtaaag aaagaaggaa 60
 aaggagaaga agagagggtg ggcttagaag cagcaaacca gagaggaaag cgtaaagca 120
 tgaaagaaaa gaaatccgaa aaagaagaga aaaaggtaag aaagaggacc gaatcagggt 180
 aagaggtaga ggagcaagaa gagaagagag aatgctgggt ggagtagcga aacaagagaa 240
 gggaagtaaa aggtaaagaa gaggaagggt ttacgagaga aggaagtaga aagaagagag 300

tgtaaggcgg cgtcataata gaaatccgaa aggagtagaa gaaaagagag agaagaaaga 360
aaagaagaga aaagccgtac tgaagaccga cacaggtact 400

<210> 4509
<211> 127
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-039-Q1-E1-G3
<400> 4509

cgggtcgagc cagcggtccg acttgaacaa tggttgcaaa gactgctctg agttgcctct 60
ttctctcttt ccttatcgct gccgcagttg cagccgacgt agtttcagag gagagatggg 120
gatatgc 127

<210> 4510
<211> 307
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-039-Q1-E1-G5
<400> 4510

aattcccggg tcgaccacg catccgagga gattggtgta aaagagcctt gcccagccc 60
caaataaata caatacaatg ctgtcattgg tcgtttcgta gatttggtgt ttcactaagt 120
gcagtcattt tgaaatatgg agtaaacata atgaaacctt gtatgagaaa aaatcactaa 180
tcaacatcag atgttctact tgagtacatc cttttgcaaa agtgcgacaa cttgtttcag 240
acatactaca acttcaactg catacctatg aagactactt tgtagaacta atggctgaag 300
aaaacta 307

<210> 4511
<211> 436
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-039-Q1-E1-G6
<400> 4511

ccgggtcgac ccacgagtc acccacgcgt ccgcccacgc gtccgcatcg gtggatattg 60

tggagaagag atggagtcga agcaatcttc atgatgcgtg gaatactagt ggtgcaagtg 120
aggataacga acaactgcaa caagtgatag acaggttgtc tacgtggcaa aataagaaca 180
cttgggacat tgaaaacgaa tcctggagca acaagcagaa caatatcaaa tattatagac 240
tagtacgtca acaactacag tatctcgttg ggaatgccgc ggttgcaaga caatgggaag 300
tcgtagttgg tggtttgact gccttggtgc agtgtgaaga gttgagagtg gtgttgaaga 360
acttgcatat cgattgggtg gcttggtata gagatggtct agaaaagagt caggttgccg 420
ggtatgtttg gttgtc 436

<210> 4512
<211> 366
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-039-Q1-E1-G7

<400> 4512

gggtcgaccc acgcatccgc ggacgcgtgg ggaagtaga aagaagagag tgtaaggcgg 60
cgtcataata gaaatccgaa aggagtagaa gaaaagagag agaagaaaga aaagaagaga 120
aaagccgtac tgaagaccga cacaggtact cgaggagaaa ggagacccaa attaaggtga 180
gagaatggac gataaggaac tatgcaaaag gatatggtat ctgcggtaga acatatgaaa 240
gaagcagcac cgactgttta gcaaaaacac agcactctgc agaaaagaga aaatgtaaag 300
tatagagtgt gcggcctgcc aaatagtaga gaagaaatcg atgaaagtga aagcgagtaa 360
aagatg 366

<210> 4513
<211> 452
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-039-Q1-E1-H1

<400> 4513

ccgggtcgag ccacgcgtcc gaccacacgt ccgccacgc gtccgccac gcgtccgcc 60
acgcgtccgc ccacgcgtcc gcattgttga atttttctgt ttcgtttact tgtctttttg 120
ttgagttatc atggcacgaa caaaacaaac agcacgcaag tctaccggtg gtaaggcacc 180

tcgaaagcag ttggcaacca aggcagcaag aaaatccgca cccgtaactg gaggagtga 240
gaagcccat cgttacggtc cgggtactgt cgccctgaga gaaattcgca agtaccagaa 300
gagcactgaa cttcttatcc gaaagttgcc ttcccaaagg ttggttcgtg aaattgctca 360
agactttaag acggacctac gtttcctaac ttccggcgtg actgcccttc aagaaccctc 420
gggagcatac ttggtcgggtt tgtttgaaga ta 452

<210> 4514
<211> 418
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-039-Q1-E1-H10

<400> 4514

ttccccgggcc gaccacgcg tcagtgttgt tgttgggtcg tcgcgttttg gtgacaagga 60
aagataaatg gtcgtcaaaa cagaaacctg tagtttttca ggtttccgca tctaccccg 120
aaaaggcact cgatttgtgc gcggggatgg caaactctc atctttagta accgcaagt 180
caaactctac ttcatatgc gtaggagacc ggcagagttg aattggactc agttgtatcg 240
aagaatgcac aaaataggac agcaagagga gacacagaag cgacgtcgta cgcgcaaagt 300
tgctgctgta ccgaaaccgg tggaaggcgc gtcgttgga gtgatcaaag caaagagaac 360
gcaacgc'ccg gaagtccgaa aaactgccaa agaagcagcg ttgaaggaaa tcaaacaa 418

<210> 4515
<211> 165
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-039-Q1-E1-H11

<400> 4515

aattcccggg ccgaccacg acgtccacgc gcaaatcgag ttgcgtgttt catttttct 60
ttgcagtgca ccgcttcgtt cttttcttct catcggaata cagttcaaca actctggttg 120
caaaaaacag cttggatgaa ataaaagaac ccacgacttt tatct 165

<210> 4516
<211> 414

<212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-039-Q1-E1-H12

 <400> 4516

 attccccgggc cgaccacgc gtccacggac gcgtgggttt ccatactatg aataataata 60
 ataataacaa gcaagacttt ggtattattg ttactttatg gaaacaagta acagtgcacac 120
 aagatggaaa agttcctttg gataccttcc taactgctgc aaaggaagtt ttacgtgtgg 180
 tagatgcctt tggttcaggc ttccgcattg taaagaacga tattgctgga aacatcaaaa 240
 aactgtatcg tgccaatcaa tctgttcaag ctaccacggt acaggatctt gtcatatcag 300
 aaaactctcc agatgggttg gctactgttg cattgttatg gttgaaaagg taaaagtcct 360
 ctctcgcttt tgtgtcctag agacctcacg atgaatgggg tgcagagctt ttca 414

<210> 4517
 <211> 424
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-039-Q1-E1-H3

 <400> 4517

 gggtcgagcc acgcgtccga ccacacgtcc ggagtagcga aacaagagaa gggaagtaaa 60
 aggtaagaaa gaggaaggt ttacgagaga aggaagtaca aagaagagag tgtaaggcgg 120
 cgtcataata gaaatccgaa aggagtagaa aaaaagagag agaagaaaga aaagaagaga 180
 aaagccgtac tgaagaccga cacacgtact cgaggagaaa ggagacccaa attaacgtga 240
 gagaatggac gataaggaac taagcaaaag gatatggtat ctgcggtaga acatatgaaa 300
 gaagcagcac cgactgttta gcaaaaacac agcactctgc agaaaagaga aaatgtaaag 360
 tatagagtgt gcggcctgcc aaatagtaga gaagaaatcg atgaaagtga aagcgagtaa 420
 aaga 424

<210> 4518
 <211> 433
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-039-Q1-E1-H5

<400> 4518

gacccacgca tccgaccacg cgtccggcaa aaaatgtctc ctcgcttcca aagtattctt 60

ctctttctcgt tcctagttgc aataatcggc tctgtaatat cgtctgccac tcctctaagt 120

gaaagatggc aaagttctac ctctgccaa gagacatgta agacagtctg tattcaaacg 180

cagatatgtt caactccaac acctacacca actccaagtg tttctgcgca acaaggaaac 240

gtataccgct ggagtgcgac gtatgcaact cctactccaa caccaactct tgtttgact 300

tatgttccgc agtgcactca agtttgcagc agcaaatgcc caagtcagac aacttctgcc 360

gtagaaagca acagttatac ctctcttctt actcaatcct ctaccacatc aacatactat 420

tatggtgctg ggc 433

<210> 4519

<211> 302

<212> DNA

<213> *Cyanidium caldarium*

<223> Clone ID: LIB190-039-Q1-E1-H7

<400> 4519

gggtcgaccc acgcatccac aactacttac cagtgtggtc agtacgagtc ccaacaagtt 60

tactaccaat gccaaaagta taaggagggt actcagcaag aatgccagta cgtccaagag 120

tcgtattgtg tcgagtatga agaatgtcag caagttaccc aggaagtctt tccttcagaa 180

attgtctact acggtgaatc ttcttctagc agtagttact actactagaa cacttgtgaa 240

atgcgcaaag tcgcaaagta gagtgttctt ttttgaataa actgttactt tttgtcataa 300

aa 302

<210> 4520

<211> 433

<212> DNA

<213> *Cyanidium caldarium*

<223> Clone ID: LIB190-039-Q1-E1-H9

<400> 4520

aggtacaggt ccagaattcc cgggccgacc cacgcgtcca cggacgcgtg ggccggacgcg 60

tgggttctgg aaggctgaaa atcctgtcga ttogaagcaa tcgacatatt tattctgtaa 120

aagaacacaa caaaatttta caacttgcgt ttcatagttt tggaactaac ttgacatgca 180
 acaaagtaac cttcgagtag tccaatcttc tttggtggca agctttgtcc tcattctaag 240
 tataatctgt gccattcatg cagtaacagc cgatgaaata acaagtttcg agagaggata 300
 ccaaacagtt gcaccaactc agacgcagca atgtcaaaag atttgtgtca cggccacaca 360
 aactcaagtt caaagttgta tttatactca gacacaggct ccgttcatgt ctcaatgtgt 420
 cacagcattg cca 433

<210> 4521
 <211> 424
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-040-Q1-E1-A1
 <400> 4521

taccggtcta gaattcccgg gctgaccac gcgtcaaggc aaccttccgc ggagcgtggg 60
 tgtgtggtgg ttggggacga cgcgtcacgt ttggatttgt gtggtatttg aatggcgacc 120
 aacagaataa ccaaatagtt ggcacacttg ggtatcgacc ccccttctaa ctgtggtgcg 180
 gggcccgtag gggacgacct ctttacttg ctagctacta tcatgggccc tectgactcg 240
 cgatatgccg gtggagtgtg tttcctcaca taccattttc caaccgacta tccgttcaaa 300
 cctccacag tgcaatttag cactcgtata tatcaccga gtcttacctc caatggaatt 360
 atctgcttga ataatcttcg cgaccaatgg agtccatcac tgactagctc gaatgtgcta 420
 ctgt 424

<210> 4522
 <211> 415
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-040-Q1-E1-A12
 <400> 4522

cgggccgacc cacgcgtcca tgacgttcca cgtttttttt gggcccttgt tggggtttgt 60
 ctcttttgtg ttgcactacc atcagtgcag ataacttgta gatatccgtt gactgaaatg 120
 acagacaagg ttggtgacta cctgaactgt gtccaagtgc aacgagtgc tgccattgcg 180

aacagaggac ccaatgaact gtttgcaagc ggagcacttt ctgaactaca gtacgtcctt 240
 ttccggctta tctaaagtag gagtggagtc ttcccatacg tgcagtcgac gagacaagta 300
 taccggtttg tgtgtcgatg gcgaaacagc aacacggttg taccaggagt cttgtcctca 360
 agtctattct tctggcataa aagacaagga tagtttgtct atgaacaagg aaaaa 415

<210> 4523
 <211> 454
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-040-Q1-E1-A5

<400> 4523

aatgcccggg ccgaccacg agtcaggtgc ccgttcacag caaacgcagc cgcagacgac 60
 ctgaattttg gagacgaata cacggagaac ctcaaaaata cgatacagaa cttcccaacc 120
 cccaagaaga tatatgaagg tctcaatgaa tatgtcgtag gtcaagaaaa ggccaagaag 180
 gttcttgctg ttgcagtcta caatcattat aaacgagttg ccctcaacga atacttggct 240
 tccctttcgt cggaaacagg agaagtcagt gatgctggca caagagggaa tggtaggcgca 300
 agtaactttg atgggaggac tcaggacttt cgtgtcggcg aagttcagtc tcttcaaca 360
 gaagaccttg cttcaatagt gcctcagaga ctaggttttc cctcaaggca ctccattggt 420
 catcccgga cttcttttagc aaggggctat acta 454

<210> 4524
 <211> 445
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-040-Q1-E1-A7

<400> 4524

cccgggccga ccacacgtc agcccacgcg tccgcccacg cgtccgtgag aatcatggta 60
 gacactaagc ttaaggacgg tgctagtgtc gctctttgga cttgccgccg atttctctat 120
 acagttgtgt tagcattttc agcaacaata attggacttg atggaatgaa ggcagataac 180
 atatggaacg atgccctata ttatcatggt aaagtgggtga acttttgtgc atattcggct 240
 tcgtcagttt ttgaaagtgg cgaccatggc gcatgtaa atgtgatggc tttggcttct 300

atcagcttga ttttagattt ctttctttgg ttggccgcct ttgtcgacgc attgtatcca 360
 attcttacia agttctgggt tgtggagctt ggtatcaaca tttccttac tatgtgggtg 420
 ttggttggtg caatttagtg actgc 445

<210> 4525
 <211> 223
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-040-Q1-E1-A9
 <400> 4525

tacggtctac cattcacggg ccgacccacg cgtccatgcg atatacaggt gtaggggtgaa 60
 gtggatgcta atgttcttga atgcttggtt ttgcatcaag ttatataaga attattgcaa 120
 taggtccatg aaatcgcaat actagtgggc cttttgggtt agcacatgta aaggggacag 180
 gattggagca acaaaggaaa tggataaaat gcaaaattgt ctg 223

<210> 4526
 <211> 300
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-040-Q1-E1-B11
 <400> 4526

gcgtccaccc acacgtccga aaggagggaa tgaagggaag ttatggcaaa aacacgtgcc 60
 agcagcagcg gtaaaacgtg tgtagcaagc gtagagcaga agaactgggt gtaaagggtcg 120
 agtagtagag taagtgtaaa agggaaagga aaggagagaa agaggaaagg gatgaaatgc 180
 agagatctct agagaaaggc aagaaagaaa agaaaggaag acacagtaaa tgaggcgaga 240
 aagcatagga agtgaaacgg attaggaacc cgtgtagtct atgcagtaaa agaaagaata 300

<210> 4527
 <211> 446
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-040-Q1-E1-B5
 <400> 4527

gaatgcccg ggcgaccac gacgtcagtg tggttcgtcc tggcggttgg ttgcattggt 60
 ggaaagcttc atgacttcac tacctcagtt attgacgtgg aagagagaaa agtctgtgga 120
 taagaagcca agtgaacagt ctcatgcaga ccgaatggta ccagatgggt tatatgaagt 180
 gagagctatt caacttcctg gaggttcgtg gagacattat tatgtagacc acgcttccaa 240
 gtcgacgtat tggattcttc cgtatcttca cccggatggg ttacgtcact cgttggaaca 300
 agaagtggac tacttacctt cttatgagga atgtgtaaag gaaacaagtc ctttggcggt 360
 tcctaataatt tcttcttctc gttcttcatt ggaagatgag tagtaaggga atgttggggg 420
 cgtagtttat gcagatgggt tttggt 446

<210> 4528
 <211> 243
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-040-Q1-E1-B7
 <400> 4528

aattcccg ggcgaccacg cgtcagcccg tgcgcaccct gactccggag tggattgaag 60
 cagagcgtcg caaagagttt gcaaaggagc gagagtcggg cccgccagtg gagcttgatc 120
 ctatcttgca caggcgtggc tatcaccact agatagttcg attatttcag tgatttggtg 180
 gcagaacagt tgttgagggt tgtgtgataa aataaaatgc ccaaagatgc gcttctttat 240
 tct 243

<210> 4529
 <211> 321
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-040-Q1-E1-C1
 <400> 4529

acccagcgt ccaggttaat tcgtcgatcg catctcatcc tggcgtaggt tagcctagtt 60
 gaagtataag catacaagat gagttcttgt acgtatctca aaggcatctt tacatttgta 120
 atagcatatg catgcgtgga ctaatcttct tctatttcag acacggaatc atactcacta 180
 tcatgataag gtgacggtca tgtcactcct acgatatcac cacacgatgc aggataatac 240

tttaattctg acaagttaat atccagttag ataacatata aaccatgtcg atctgacact 300
cgatgtcagt tcatagatcc t 321

<210> 4530
<211> 438
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-040-Q1-E1-C6

<400> 4530

aattcncggg ccgacccacg catcagattt acgaggaact gtctcgagaa cgaaatattc 60
gacccggcctt tcgttttggg ctgtttggag gtttggccaa tgcggcagta gaaacgtaca 120
tctttcgtgg aaagagtttt tggacttttc atctgcctca tcaggcaaat gagagcttaa 180
aacctgcttc ttcttgtgaa aagattagtt atccgaaacc tgatgggaag cttacttttg 240
atatcttgac atccgttgcc ttgagtggta ccaatcatga tcacgaccaa cctccgcatt 300
taaaagtcaa agaccgcaaa gtagtggaag atatcaattg gaaggtatat gcgggtccag 360
aaagtagata ctgtcctgca agagtttatg aatatgtaga agacgattcg ggacaaccaa 420
agttacaaat caatgctc 438

<210> 4531
<211> 397
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-040-Q1-E1-C8

<400> 4531

gtacaagtac ggaattcccg ggccgaccca cgcgtcagcg gacgcgtggg cggtcgcgtg 60
ggaatgaata aagacttgat ttggcaacgt ccaagtttct ggttcaaggt tgcaggtttt 120
agtggagcag ctgctgtagg tttgggagcc tttggtgctc atggactccg ggcacgagtc 180
acagaccctt atttgttaca aatatggaat cgtgcggcaa gttatcacca gatacatagt 240
ttagctgttt gtgctgcagc ctgttgtgca aatagcgagg gaaaacctgc ttttgtagca 300
acgtcgttgt tctctcttgg aatagcgttg ttctctggtt ccctgtatgc tttgacttta 360

actgtgaacc gaaaaactgg tgcagttact ccgtttg 397

<210> 4532
<211> 400
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-040-Q1-E1-D10

<400> 4532

cacgcgtcca ctctacgctt gaactaaaat atccttttct atttgggtga gttcatgttc 60
aactaaggaa aagttggtat ccagataagc attcactgtg ttgagttctt cctcaatgtt 120
catggaattg tgccaaatth cagcaagttt cttgtaatct ttcgtaaact catgttgcac 180
attggtaatg atggtctgca tatctgactc aacttgcgtc atgttgcagc ttatatcaa 240
gttatacagc tgagttttta ggtccactgt attattccat atttcaacaa gtttcgtata 300
ttccaccgta aattcttggt gcatgggtga gataattgtg gttaaaccatg ttggggccacc 360
gtagaactgt aattgatcaa tatggataga gcatttgaac 400

<210> 4533
<211> 406
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-040-Q1-E1-D11

<400> 4533

gccacgcgtc caccacgcgg tccgagaaga tatttcaaact cctgaacgag tataagcttt 60
cgttgctaca ttcataccaa gcagttgtgc agctttcata aagaaagatg ttagattact 120
tggcagctcc atctcaacgc catgagaaaa gtctccgttt ctgaaaatcc ttacttggca 180
agactcttga ctattatata aggacaactc ggaacacttg tttgataggt gggtatacat 240
cttttctttg ccagaagaat ctcccggaga agacttgtga cgggaacggt gccgactagg 300
aagagattct tttggaactt ctgtggaaga ctcaacttgg ggaatatctt cttcccctgt 360
acaacttact accaaggaat cctcatctat catatcgaat atgctt 406

<210> 4534
<211> 448
<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-040-Q1-E1-D2

<400> 4534

cgggccgacc cacgcgtcaa cccacgcgtc cgcccacgcy tccgcccacy cgteccgcca 60

cgcgtccgca ttcaacgaac gatgaagttc cagtaagtta gtcttttatt ggctctctta 120

tgcgtagggt ctgctctggc tgctgaattg gcacctggaa ttgcggaaaa accggtagag 180

agaggatatg aggaaccctg ctgtaccgaa tattgttatt gggaagaaat atgtatcaca 240

cccacaccca cacctacacc aacctactat tactattatt acgcaagaaa tgcaaaacag 300

gaaaatgtcg agagaagcgt agaaaagagt atctcttccg cagaaaaatc tgatgcgggt 360

cgaggggtatt tccccacgta ctactattat gagactccta catattatta ctattatgag 420

actccgacat attattacta ttatgaga 448

<210> 4535

<211> 344

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-040-Q1-E1-D3

<400> 4535

cgaagagatt tcaattcgct tggcttaagt atcgatgaat tgattgatgc ttatgttcag 60

acgggtgttg cagtagtagc tatcgataga atggcacagt ttttgaggcc taacgggtgtg 120

ttcaataagc accttttaac ctcggtggac aacgatgagt atttacttga cgagattctt 180

tacgatcagg agaaccatta gtcgatga acaatgattt atgtatacag tttccatccc 240

atatgtaaat atctatttgt ggaactgaat gcggtgtag tacttacccc aataataaaa 300

ggtaatatac acagacatga agacgttgag aaacagttca aagg 344

<210> 4536

<211> 427

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-040-Q1-E1-D5

<400> 4536

acccacgcgt cagctgaagc ccagtttggc acttgatca ctatagtaat ggtactttgc 60
 tattctttgg aaactccaat cggatatct attggtattg gtattgcaca cacttatcag 120
 gaaaactcct cggcatcttt gttacgaga ggcattttgg atgccatctc cggtggaatt 180
 ttaatatata caggattggg ggagttgttg acttattggg ttacgcgcaa ctggaacttt 240
 ttaagacgca aagccatctc ttttttagt attgtgggat ttgtctggtt aggagccatc 300
 tgcattggga ttatcggagc gtgggcctaa gaataaaatt tgtttgagac gtcgtggtgc 360
 agatgactcg catgtgtggg agttggttca agtttgacaa gaganaacat ttgttgctac 420
 ttcttac 427

<210> 4537
 <211> 409
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-040-Q1-E1-D6
 <400> 4537

gtaccagtca ggaattcccg ggccgacca cgcgtcagcg gacgcgtggg cttcaagttg 60
 ttgtaataaa tattcgagaa aagttgtagt cgtttgtcac gagtcagaac catctttcaa 120
 aaatatatgt tatctttttt taatattatt atgccatgtt tcttgaagct ttaccgcgag 180
 atgttataag gaacatatgc tgtcatttgg acggtgtatc actagctaga ctttcctgta 240
 cctgtagaaa actaagaaac gtttgccgag atgaagctct ctgggttgct tgtctcaaaa 300
 gggaggtttt ggaagatgta aaggaagagt ttgtcctttc cttaaacaaa catgcgcaat 360
 atcaaagaag ctggtataag atctatcagt cacttcatgg tgccgcacg 409

<210> 4538
 <211> 451
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-040-Q1-E1-D7
 <400> 4538

aattcccggg ccgaccacg cgtcagcttt gtcgaggag aggattcgtc ctgttctcat 60
 gtttgtggtg tggtttctg caagtttggg atggaaacaa ccagcaacaa ctactcaaag 120

aatttcaagt tatcactgga taactacaac atggatatct ttgaaaatga aacgtcattc 180
 ttctccaaac caccacaccg taagggtttcc tctccgcatg atgaactcgg agaacaagac 240
 gcgaccccg tacttgcaag agttgccttt gattccgacg gacgaaatat actcgaaaag 300
 ttttcggttg aatcgaattg gttgctatgc cttgtacaac ggtgaccaag cactttgtta 360
 tgtaagttac accaaaaact tgcacagaaa gattgccttt cagccaagt tgcaaccaga 420
 gaattgcaaa tttttcacag cctttgtcgt a 451

<210> 4539
 <211> 462
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-040-Q1-E1-D8
 <400> 4539

gtaccagtca ggaattcccg ggccgaccca cgcgtcagca tatacaagct gcaggctttc 60
 gcttcaacac cagtataatt cccattgatt tatgactttc caacagtgga tgattatttg 120
 tattgtcttg cagaaatgaa tcaaggatg aaacagtaca tgggagaacc acagagtgg 180
 gcttggcgac aactacacag ctatgtcaag gaacatagtt ctcacaagct ttccgatgg 240
 tctgtcgta ttcgattgaa cattatctcg attggcattg aatccgaccc agtagcataa 300
 tatacgcatg gtgtgttctg ttcgagaaaa ttggttgcta tgccttgta aacggtgacc 360
 aagcactttg ttatgtaagt tacaccaaga acttgcacag aaagattgcc tttcacgcca 420
 agttgcaacc agacaattgc aaatttttca aagcctttgt cg 462

<210> 4540
 <211> 394
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-040-Q1-E1-D9
 <400> 4540

acgcgtccac ccacacgtcc gccacgcgt ccgccacgc gtcgcttg gcacagattg 60
 agttgcgtgc cacgaattat gaagaagctg ctgctctcgt ctcttttggtg gagccattgg 120
 aacctaccaa tgtgtatcta tggcaaacct atgctcagat agaaagtgt cagggtcatt 180

tggaacaagc ctatcattac tatttgaagg ctcttgagtt ggatcccaac aatgtagtag 240
 ttatggcatg tctggcaaaa ttggaagcga aaaagggtaa tgttgatgaa gcaaggagta 300
 tttttagaaa agctattgag ttggacgaga aagtgcccggt atatatgcat gttggggccaa 360
 cgtagaactg tgattgaaca atatggatag agca 394

<210> 4541
 <211> 372
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-040-Q1-E1-E1
 <400> 4541

cggctctagaa aatccggggc ggcccacgcg tcaggacata ttggataggg aatgtatcga 60
 tgtatacgat gtgaacagtc taatgtatta aagtgcagg aatcacgagt aagggtctagc 120
 gcgacgtgtg ggttcttgcg atataaaaca aggattgtac agcacttgca gactgtcctc 180
 aacgcaattt gctgtttgtg tagacagtaa gttacgaaca gtatgtgacg acgaaaaaat 240
 ggtacaaaac aaggcgggtca ctctaaagga tactagctta cgtagtcgtg catacgacgg 300
 tctaaatcgt aaagattgac acgtagatac atttcaatag ctgtcatatg agtacattat 360
 gactggaaaa ac 372

<210> 4542
 <211> 411
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-040-Q1-E1-E10
 <400> 4542

cgggccgacc cacgcgtcca cccaagcgtc cgcggacgcg tgggcgcaat gacggttagg 60
 ctttcatctt ttcgtttttt cttcttttgg ttttactgct ataacgcggt gctcaagaaa 120
 cttagagtga atccgaacca aacgagcgcg gttttgctgt gacagagcga taaggaagtt 180
 gaagtggaca gacgtctttt gttcttttca ctgccaaca agtgcaaaag agatccgctc 240
 ctgccatagg acaaaacaac tagtcactga gtacaacgtg cgtcggcgca gggcattcta 300
 gcagcactat actattcatg agctagtaca agactacgcc ataacagcct cgttcgcaga 360

atagtagaat ttttctgcaa acaagctttg gggacagagg agacaacaga g

411

<210> 4543

<211> 439

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-040-Q1-E1-E2

<400> 4543

gggccgaccc acgcgtccac tcattgttgt gtcgtgcatg ttaaaggaat aagtagttat 60
tattgatatg gaggctgcgt taagtgcagt tagtgaaaag tgtgggacag agtttaaaaa 120
ctttcagcac tgtgtagcag caaatagaga taactgggag gaagtttgta gacctcagaa 180
agcagacttt gccaaatgta cttctgaaaa tatgcagttt atggacttgg tacgagaggg 240
ttgtttcttg gaaattcgtc aatatgaaag atgcctcaag gaaaacagga cagaaccaac 300
cctgtgtgag gaaaaacgaa aacaagtctt ggactgtggc gacactgtta ttcgcaacaa 360
ccaagaagac tcggaaaaca ctccatagaa aactatctat tatgcaacaa cagtgtgtta 420
ttccatanag aaacgaaca 439

<210> 4544

<211> 462

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-040-Q1-E1-E6

<400> 4544

ggtaccagtc aggaattccc gggccgaccc acgcgtcagc ccacgcgtcc ggtagatat 60
tgtgaaagat gggagtcaaa gttggtatta atgggtttgg gagaattgga aggctagttc 120
ttagagctgc tttggagaaa cagtctgtag atgtggtagc tatcaacgat ccctttattg 180
atttggaacta tatggtctac atgttcaa atgactctgt gcacggcgct tatccaggta 240
cagtggtagc aaagaatgga aaacttgctg tggatggaca cgaaatggca gtgtttgcct 300
tccgtgaccc tagtgagatc ccttggtcct ctactggagc agaatatatt gtggaatcaa 360
caggagtatt tactgctgca gataaagctc gagcacatat gaagggaagt gctaagaaag 420

taatcatttc tgctccggtc aacgacgctc ccatgtttgt ga

462

<210> 4545

<211> 392

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-040-Q1-E1-E7

<400> 4545

attccccgggc cgacccacgc gtcagcccac gcgtccgggtt acatatcgtg agtaattgaa 60
gtcagcatta gtggtaacga gttggttaga atgagtaggc tcatgcgtag gaatactttg 120
tggaagttag ctgtatgtat atgcaactga caccaatctc gttaatgatt tagtcgagaa 180
cgacaacatg gtcatgcgtt aacactggcc ataggactga tcgaattgca gttgaatcat 240
ttgatactgt ttttatcgta gatgagaacc aagtggtagt gtatgccttc cgtagacctt 300
ctatgattcc ttagacatct gatggaacta attaaagtgt taaatcgagt agtatagtta 360
cagctgcaag taagactcga gcatataatg aa 392

<210> 4546

<211> 365

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-040-Q1-E1-E8

<400> 4546

aattccccggg ccgacccacg cgtcaggaag aagaagccat ccaaattgcc aacgatactt 60
cgtatggttt agtgctggt ctgtggactc gagatattat gaaagcttat cgcgtatctc 120
gagcaatcaa ggctggtcgt gtttgggtta actgctatca tgagtatcct tctcatgcgg 180
cgtttggtgg ttataagaag tcagggtttg gtcgtgaatg ccacaagttg actttggagc 240
actatcaaca attgaagaac attatcatca gttactcacc acaaccact ggtctgtttt 300
aagtttgaga ttggagggtt tgttgtttgt ttgtgtgagt gttataaaga atcatgtgtt 360
ggtgt 365

<210> 4547

<211> 400

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-040-Q1-E1-F2

<400> 4547

```
cgggccgacc caccgctcca cccacgcgtc cgcgtggttg gcggagttat gcagtggatc 60
ttccaccgac ttggaaattt ctgctcaagc agttgggaat acgtttgaag gttggggaac 120
gtcccttgca tggtttgcca atgtagttgg taagggacct acagaacgca aggagcgaat 180
ggcagacctt ctttttgacg aacaacaggg cctacgtttg aatattgttc gttacaatat 240
tggtggtgga gagaatccaa atattcccgt tacactcgaa cctagagctt gtatccctgg 300
tctttatact agtgcccatc aagttaattc tctttcactg gaacaagata gcggccagtt 360
gtggttttta catgcagcgg tganaagagg agttgacaag 400
```

<210> 4548

<211> 441

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-040-Q1-E1-F4

<400> 4548

```
gggcccaccc acgcgtcagt ggagaggatg cttgcctttg tgaatacaaa tcttgttctc 60
cagagatcct tgaaaaagtc gtctgaatcg ttttgtaaac agtgttggtt ccaacaaaga 120
agtcttctat cgacaaagaa gtttcgtcaa ctacgagttc gaatatgtgt tacgaatacc 180
ctcttctgta gtttctcaga agcaccagtt gacgagatag atgaaacaat taaagaagct 240
caaggtactg aactttcgcg agctgattcc gacttgtaa agtttgctt gatgggaaat 300
attgtgggag tacaacaagc acttgcagct ggcgcgaaag ctggagttca agacaaggaa 360
tgacgaactg cgttacactt ggctgccgct attggtgttc atccttangt gaaataatat 420
tacaagctgc tggagatctc g 441
```

<210> 4549

<211> 247

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-040-Q1-E1-F6

<400> 4549

aatgccccggg ctgaccacg cgtcagcgtg gcagccggaa gctttgtgat atggtggtca 60
ttccttgcct tgtttatatt caaaaacaga tcgctattaa actatttgaa caatttgtag 120
aagaagaaga ggaaagatat caactcaata aagtagtatg gcacttgtat cattcctaaa 180
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaggag 240
gaagcac 247

<210> 4550

<211> 375

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-040-Q1-E1-F7

<400> 4550

aattccccggg ccgaccacg cgtcagagat aatgcgctgg cacaacgttg gtatcgattg 60
gaagccatcc gtgcggtcaa ccaagctatc ggtcgagtga tacgacatga gaaagatttt 120
ggtgcgatta ttctttgtga tgaacgtttt tgtagtatgt ctcaccaact ttctcgttgg 180
atacagccat ttgtacgtca ttattctttt ggacagttgc aatccaactt gcatcagttt 240
tttaagcgtc gagtatctgg tggaaagaag agaagtgaac aaggagaggt gttgtcttca 300
tcctctccaa agaaaactcc caagttgagt gcgggagatg aagcatattt atttcaagcc 360
atgggaatgg agcct 375

<210> 4551

<211> 362

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-040-Q1-E1-F8

<400> 4551

gtaccagtca agaattcccg ggccgaccca cgcgtcagaa gccaacagca gttgagcaca 60
gcaatatcga tatgtcaagt ggctggaata actatagtgg aacggcaggc aatgggaatg 120
ctggtgctgg tcaagggaag aacacggata agaagaccag tggagaactt gcaaaagata 180

gtttaaacgg gttgggaatg gcagccttgt cagcgggtaa gctggtttat cgcggtggca 240
 agtgggtgtg ggataaagtg gaaggcgcca ttgacgacca caagtcaata ggaagtaaga 300
 gtggctgtgg tggaattca cgttattctc gttgaaacgt aataacgtgg atagaaacag 360
 aa 362

<210> 4552
 <211> 405
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-040-Q1-E1-F9
 <400> 4552

acgcgtccac tttaggatcg gcaacgcaat tccgagaaag aaaaattggt gaggcacacg 60
 agtgtcgttg ctagtgtat aggatggtag tttatcgaaa gggactagta aatafgttac 120
 aaaagtcttt aaaagagttt aaagatgctg ttcgtcagga gaaaatcaaa gaggactttt 180
 ctaaaagcga atatcacgtt acaaagggag agaagattcg tgccaataga cttcaagcac 240
 aatatgcaag aaaggcaacg aagacttggg atatgatcaa tacgctgttg gaaagacagt 300
 cgagaggatt ctaattggat atttgtatgt ggaggagcta aggaagaagg tgataggaca 360
 agggttgtat atctatggtg atagttgtgg tatctagttg tgatg 405

<210> 4553
 <211> 385
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-040-Q1-E1-G11
 <400> 4553

acgcgtccag acaaattggc aacgctggtc aagatggcct tgtgcaagtc aacaaacata 60
 gagaagtaaa gagattgcaa gaagataata ttttgaatag agcactatca caaccaggag 120
 atgtatttct gtgcttttgc aacatccagt tgttggtgaa tgcagaaaga gctattatag 180
 gaaatattac ttgtccagaa agtatcgaat tgtgtcgtct attagctgga catatagcgg 240
 tttggttcga tgaacatttg gatgactttc gtttggaagc tatcttggga gcactagtgt 300
 gtacttgta ctgtgagtgg aagcgttttg aaggagaatt gggggtaaa gaatggaatg 360

aattggacaa gatattctcc ctaga

385

<210> 4554
<211> 83
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-040-Q1-E1-G2

<400> 4554

cgggtcaagta tccggggccga cccacgcgtc aaagaatata ctccgggtgg gtgaaaagtt 60
ggcgggtgggt ggacttaata aat 83

<210> 4555
<211> 440
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-040-Q1-E1-G3

<400> 4555

gggccgaccc acgcgtcaga aaagttcaaa tattcattgt gtacctgaca gtagaactgc 60
attgaatgga gaaaaggatt gtagacgtgc cttttgacac atgatataga atgactgctg 120
ctgccgtatt cactgcttct tgagctttcc aatgtcactt ggctccacaa tcctagatag 180
gattctttga caagatatgt agggatatcca ttcctccctt atccatcctc ttcttgataa 240
tggtcaccga aagggttgctt tcaaccaagt actctgtgag aacaattccg aagtgttttt 300
ttaagaagaa aatttggtga ggcggcctga aagctttgac tcggctctgg gtcgatacag 360
aaagcatggc aaaattttta ggatgaagaa caaaagcaag gatcgagacg aggatctatt 420
gtcatcaatg caaaacacga 440

<210> 4556
<211> 258
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-040-Q1-E1-G6

<400> 4556

gtacaagtaa agaatgcccg ggccgaccca cgcgtcagcc caccgcgtccg cccacgcgtc 60

cgccccacgcg tccgagggct taggggtggat accttggcat ccagaagcga tgaagggcgt 120
 ggctaccaac gaaatgcttc gaggagctgg aagcaagctt tgatccggag gtacccgaat 180
 gaggcaactc tttatactgt ctactgaata tataggtaga taagagcgaa cttagtgaac 240
 tgaaacatct tagtaact 258

<210> 4557
 <211> 445
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-040-Q1-E1-G7
 <400> 4557

aattccccggg ccgaccacg cgtcagccca cgcgtccgca cggacgtatt ctaaaggatg 60
 atgttgtaga atatttgagc agcacaggaa cgacgagcaa gaagcaacag cagcagcaac 120
 aacaacaaac agaacagcaa aagccgaaaa gtatcgccga ccagtcttct tcagttactc 180
 caagtgagga tagcgcaact catagaacat atgaagatat tccattgaat aacatgcgca 240
 aagttattgc tcgtcgattg acagagtcca agtctcaagt acctcatgaa tattgtcaaa 300
 ttcaatgtca actcgataag gtattagagt tgcggaatat ttggaagaag gaaaggaatg 360
 tgtctatttc cgtaaagat tttgttattc gagctactgc agttgcattg agacgagtac 420
 cagagttgaa tatcgtttgg gatga 445

<210> 4558
 <211> 392
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-040-Q1-E1-G8
 <400> 4558

aattccccggg ccgaccacg cgtcagcgaa acaagttgaa tcggaagcta ttttaagaga 60
 actgctcgta tgtctcattc aacgtatgaa aggttcaaag gatatcaact tgctcttggc 120
 ttttacagaa atgctcgtag aagcttcggt tcataagagc accattgggtc atatcgctaa 180
 tcaacgtctg atgttctacc tgatacatcc ttttgcaaaa gtgcgacaac ttgtttccga 240
 cagactacaa gttcaactgc ttacctatga agactacttt gtagaactaa tgggtgagga 300

aaactatcaa caagcgatac aaatttttga acaagtagaa tgggataaga cctccccata 360
gaaactaaca taacatagga atcgactttg ta 392

<210> 4559
<211> 444
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-040-Q1-E1-H1

<400> 4559

cgggccgacc cacgcgtcca gccacgcgtc aggtttaccc atcaatcttc tcagctctca 60
tatggatgtg gtccctgtag agactctaag ttggtcaatg gatgcatttg ctgggatagt 120
ggaaaacggt acaatgtatg gaagacgtac tcaggatatg acgagtgtta ccattcaata 180
ttttcaagca cttggaaacc tattacagcg tggatggaag ccagatcgaa ctattttggt 240
ttccgtagtg cccgatgaag agattggagg gacgcaagga atgggagtgt ttgtagagtc 300
ggaagaattc cagaaatgga atattggttt tgaattggat gaatgattgg ccaatcctga 360
ctcttttatg tggttgtatt atggtgagcg acagccttgg tggttagtta ttggagctat 420
cgatcagcct gcacatggag caac 444

<210> 4560
<211> 375
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-040-Q1-E1-H10

<400> 4560

gcgtcaatta cgaccgcta ttcccgatcg tggttttgcc acttccatac atttggggag 60
cagggagacg cacggtcgag ttgatgacga tcgaaagcca caaatggaag cggcaattgt 120
acgtattatg aaggccagaa agtatttga ccacaacaat ttggtgtcog aagtgattag 180
ccaactacaa tctcatttcg tgccggaacc tgcagaaatt aagcgaagga tcgagagttt 240
gatcgaacgc gagtttttag aaagagataa taaccaaaaa agttatcggt atattgcgta 300
agaagctatt tgtgtgctct gtaggctgca caggtagaag ataaaggaga gcatgttttt 360
tttaciaaacc aaann 375

<210> 4561
 <211> 433
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-040-Q1-E1-H2

 <400> 4561

```

cccacgcgtc agaccactcc aagaangtgt tgcacggctg tcgaaagaac gtgctgtgaa   60
gtgagagaac gtacgagaaa gccaaagtgag gaaaagaagg caagtagagg gcggcccgag  120
aaaggagagg gcgtaagacg tgatacagag taagaagaaa agagaagaga gctagaaagg  180
aggtaaaaga agagtaaaag gactagaaga ggtacggaat tcacgaagaa ggagcgtgaa  240
ggaaggagga atcccaagta atcgaggaag aaaaagcttc ggtgaaagcg tgaacggatt  300
ttgtacacac tgcccgtaa gttctggaag tgtgctaaga ataagcaaga gaagtagaag  360
agagtaagaa aagaagaaag gaagtgaaga cgtaaaacgt gtgtagcaag cgtagagcag  420
aagaactggg tgt                                                         433
  
```

<210> 4562
 <211> 287
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-040-Q1-E1-H6

 <400> 4562

```

accacagagt cagaacacat gcaagtaggt aaagcgaacg ggtgagtaaa gaggtgtgaa   60
agagtggaag aacataaaag gactagaaga ggtacggaat tcacaggaa ggagcgtgaa  120
ggaaggagga atcccaagta atcgaggaag aaaaagcttc ggtgaaagcg tgaacggatt  180
ttgtacacac tgcccgtaa gttctggaag tgtgctagga ataagcagga gaagtagaag  240
agagtaggac aagaagaaag gaagtgaaga cgtaagacgt gaaacac                 287
  
```

<210> 4563
 <211> 372
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-041-Q1-E1-A10

<400> 4563

attcgagctt tcgcagatgc gttggtagtc attccataca ctttggccga gaacgctggc 60
ttaccatcca tagaaatcgt tacggaactg agaaacaaac acgtacaagg agataagaat 120
gcaggaatca atttcaaaaa gggatgcata agtaatatgg ctgaggaaaa tgttggttatg 180
cctttgcttg tgacagttag tgctttgagg cttgcaacgg aatgcgtccg aatgattctg 240
aagatcgatg atattgtgat gactcgctag aaaagtcctt ggtgctatctt ggaaaataaa 300
aaggttcattc ataaacaaaa ctaatgataa ctggtaatcc tcaaaaagct atataaataa 360
cgtatgcagg aa 372

<210> 4564

<211> 385

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-041-Q1-E1-A6

<400> 4564

cgggtcgacc cacacgtcca cccacgcgtc ggtgcagatg cagctgtcaa acataccgtc 60
aaagccgatg ttggaaggat tgcggtagt acaccatgag ctccccagga agagatagct 120
cgagtgaaga cacctttgcg cgatagcaca ctatctcgcg tacctggaga cactggacca 180
aggattttga agcctggcgy ctgtaacatt aggaataagc cagggatatat tcaatcacgg 240
ggttagaatg gtgacgcaca tgtgcagtgc ggacgtacat atgaagctgt gactcacact 300
acgtcacatg aacttgggtca gaggaatggt accgcagtaa gtgatgctac atatgagtcg 360
acttcataa tggacagttt tgaga 385

<210> 4565

<211> 442

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-041-Q1-E1-B2

<400> 4565

acgcgtccag tcttgacaaa actcgaaaac tatttatttc ttgttatttt tttagagggtt 60

tttctagagt gtgttttttg. gagttgttgt actccagtct tgggtggttg tgaaaggctc 120
 tagtgacaaa gaggggttgtt actttccgc cattctccac agctccaacc atcaacttgt 180
 atacggacac atatacataa ctatgttcgt acatagtcgt ggtgtaaaaa gcgacaattc 240
 gaatggttgc aaaggcttga tgaaaagcaa aggaccagtg aagggtgttag agaaagcact 300
 tgaaaaaggg ggacacttcc gtgtatattt gtgccctag taactaacta attcctcttg 360
 aagatattgc aagtttggtg tactaaacac gaattgcaag tgttagtata agagagtgtg 420
 tacgtgtgtg tactgtgttt tt 442

<210> 4566
 <211> 448
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-041-Q1-E1-B6
 <400> 4566

gacccaagcg tccaggtatc tgcggtagaa catatgaaag aagcagcacc gactgttttag 60
 caaaaacaca gcactctgca gaaaagagaa aatgtaaagt atagagtgtg cggcctgcc 120
 aatagtagag aagaaatcga tgaaagtga agcgagtaca agatgaggta tagagaatgg 180
 cggtcctaac tgtaaggatc caaaggtagc gaagtaaata gacgtttgaa aggcgtccag 240
 tatgaaagga gaaacgagtg tagcactgtc tagtcgtcca actcagcgaa acagcaataa 300
 ctgtgaaaat gcagtaaact agcagtagga cggaaagacc ccataattct tgactagata 360
 ggtttaggga ggagagagaa tcatgaagta gaggaggtgg ggtaagagat gaaagaccac 420
 tgcattgagga taaagaatct aactgagt 448

<210> 4567
 <211> 239
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-041-Q1-E1-B8
 <400> 4567

gacccaaacg tccaccacg cgtccgcca cgcgtccgat cattttcaac aataataata 60
 ataatagtat aataataata aaaccaatcc ctttgacaac aaaaaaaaaa aaaaaaaaaa 120

aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180
 aaaaacaaaa ataaaaagac aaaaaaaaaac aaacacaggt gcaaacaaaa agaaaaacc 239

<210> 4568
 <211> 422
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-041-Q1-E1-C1
 <400> 4568

gtcgaccgac gcgtccgacc acgaatccgc ccacgcgtcc gctcattgtg gtttctgcc 60
 tggcgaaagg tatactacag gatcgtcttg agaagcttct gccttataat cagacctggt 120
 atttttatat aaccaagata gtattttacg tatgcacttt tattttctct gtcgtcattg 180
 ctgctctggt cagtaacgca gagtttaata tatttgataa atccccaccg aatattcatg 240
 gagacttttg tgcatacaag gcgtcactag ctgagccagc tggcgtgact gccatttgca 300
 agtacctcat agcagtaggt gctcttggcc ttgtgtttgc tataaggttt gttgcattct 360
 ctctatggac ccttttggca catcgagtga ttgacttatg gtgggtcgaa gccttgttga 420
 at 422

<210> 4569
 <211> 454
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-041-Q1-E1-C2
 <400> 4569

ttcacgggtc gacgacgct ccgagaatac tatggcaagt cttttggaga atcccgggtg 60
 ccaacaaatg ttgcaaaata tgttttcaga tccttccact gtagaatctg ttcttatgag 120
 taatccccag ttgagacaaa tgggtggaatc caatcctcag atgatgaata tgttgaggaa 180
 tccagacttt ttaagaacca tgtcgaatcc tcagtttttg aggactatgt ttcagttaca 240
 acaagccttt cagtcgagca acccaactag tacttctctc tcctcttatc catccagtaa 300
 taataataat aataatacga atacttttcc atccaattca tctgggtgcta attatatgcc 360
 agatatgagt gcattgtttt ctcttttagg tgccaacaac aacaataccg catcctttgt 420

agattcagct attgccaata tgactcaaga acag 454

<210> 4570
<211> 438
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-041-Q1-E1-C4

<400> 4570

ggtcgacgac gcgctccggaa ataacagaaa aacttgctctt atggcaacat cggggtgttt 60
tgtgcgccaa taacagcggt gagtgcgcg aacacgtaat gccgatgtcc gaatcactca 120
attgcatagt tgcgtgaaca aagtgaagat ttcattgcga ggaggacagg ctttagttac 180
ttattctgta ccaaaaaagc atggatagaa ctagagcctg gaattcgtat tggactgcat 240
gcattaacaa aatttccaat ctaatgaaga gatgttcccg ttgtgtatcc aatctagaga 300
gtaagggctt cgctctatac caaacatgg atatcttttag agtctggagt ttgccgtttg 360
ctagttaaga gtcctctctg tgattcctga cgctgatgcc gtcctcctgt atctctcttg 420
agggatgggtg caaaagac 438

<210> 4571
<211> 445
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-041-Q1-E1-C5

<400> 4571

ttcccgggtc gaccaagcg tccagaaaaa ggtaagaaag aaggaaaagg aaaaaaaaaa 60
agggaagggt aaaaacaaca aacaaaaaaa ggaaaccttt aagcaataaa gaaaagaaat 120
cccaaaaaga aaaaaaaaaag ggtaaaaaga aggaccaatc aagggttaaaa ggtaaaagac 180
aagaagaaaa aaaaaaatc cgggttgaat taccaaacca gaaaaggaa attaaaaggt 240
agaaagaagg aaagggttaac aaaaaaagga attaaaagaa gaaaatttta aggcggcttc 300
atattaaaat tccaaaagga ttaaagaaaa gagaaaagag aaaggaaaga agaaaaaac 360
ccttctggag aacgacaaaa gttatccaag aaaaaaggaa acccaattta aggtaaaaaa 420
ttggccaata aggacttagg caaaa 445

<210> 4572
<211> 418
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-041-Q1-E1-C6

<400> 4572

attccccgggt cgacccaaac gtccagaatt gtgactccaa atatggcaag tggaaccgct 60
gatgtaggtc tgataggctt agctgtgatg ggacaaaact tggtagtgaa tatgaacgac 120
catggattta aagtagcggt ttttaacaga actgtctcaa aagtagacga ctttcttaac 180
ggagaagcca agaataccaa catagtgggg gcgcactcgt tgcaagagtt ttgtggtcct 240
ttgaagaaac ccagaatcat tattcttctt gtcaaggcgg gtgaagcagt agatcagttt 300
atttctatgc tcgtgccact tttgtctagt ggtgatctca tagttgatgg gggaaactct 360
cactttctgg acaccagacg aagaacgaaa gaacttgaag ctaaaggact gcttttta 418

<210> 4573
<211> 446
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-041-Q1-E1-C7

<400> 4573

ccgggtcgac ccaagcgctc attccaattg agctcttttc ttcgttggtt ggtgtgtggt 60
gacttggatg aaaacttatc tctttgttcc gtcttgttct tgtctttcta caaaacttgc 120
aagtggaaaa caagtagcag ttgattcaag ttggaaaaga tgtggacagt tcaagggaaa 180
tcgttcttcc ctccatgctg ctcttggcac tcttaacaaa gcaaggcca ggttttctgt 240
ttccatgaaa accgaagctt gggtaaagtt gataaaaact gagcaactaa agccgggaga 300
cttgaaacct tttttcgttg ctggccagtc tttgctagta gtatgtgact atgacggtca 360
agtatactgt tctgccaacg tttgtccaca cttgggaaca ccattggatt aaggaacggt 420
atctagtggg aacttgatat gtgccc 446

<210> 4574
<211> 291
<212> DNA

<213> Cyanidium caldarium
 <223> Clone ID: LIB190-041-Q1-E1-C8
 <400> 4574
 acccacgCGT cCGccCacgc gTccggtaca ttcaacatca tcaaTGcca aaggGaggaa 60
 agaaagattc ttcaaagaaa gaagccacaa gtaaacctgc agcagcagat gctacaaaga 120
 cgacagaaaa gtctggtccg gaagccaagt tgaagggaac tggtgcaaag aaacaataaa 180
 aagttgacta tgcattgtcc tggtatgttt tgtgagttct gtttgatagt ttccagctat 240
 tcttttggtA gtgaataaag agaaaatttt ttatatTTaa aaaaaaaaaa a 291

<210> 4575
 <211> 134
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-041-Q1-E1-D1
 <400> 4575
 cgtccgctcg acaaccacca atactactag caacgaaaag aaggataaat tgagaattag 60
 ttttcacgag tttcaggtac taaccaatcg aatagctcta ttcttaagac gaaacgatgc 120
 agaaggagtt gctg 134

<210> 4576
 <211> 255
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-041-Q1-E1-D11
 <400> 4576
 aaggaggatc caccctaacg tatccatgca tactacgtca taactcttct aaagtgtcac 60
 ccaaattcaa ttcaaggt cgacttatta gaccttcgtt actgaaaaaa ccctggggta 120
 aaccacctta atcacctagc ataacatccc cctttcaciaa cccgttttaa caaccaggag 180
 gaccacacia atggcccttc ccaatagttg ttcaaacaaa ttggcaaag gaaagcgcca 240
 tgtaaccgcc catta 255

<210> 4577

<211> 455
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-041-Q1-E1-D5

<400> 4577

ccgggtcgac ccaagcgctc acggacgcgt gggcggacgc gtggggtcga gagggaaaaa 60
gcccagaagc caagataagg tatcaaagta aagaaagaag gaaaaggaga agaagagagg 120
gtaggcttag aagcagcaaa ccagagagga aagcggttaa gcatgaaaga aaagaaatcc 180
gaaaaagaag agaaaaaggt aagaaagagg accgaatcag ggtaagaggt agaggagcaa 240
gaagagaaga gagaatgctg ggtggagtag cgaaacaaga gaagggaagt aaaaggtaag 300
aaagaggaca ggttttacgag agaaggaagt agaaagaaga gagtgttaagg cggcgtcata 360
atagaaatcc gaaaggagta gaagaaaaga gagagaagaa agaaaagaag agaaaagccg 420
tactgaagac caacagtaaa caattggttt tacac 455

<210> 4578
<211> 459
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-041-Q1-E1-D6

<400> 4578

attccccgggt cgacccaagc gtccagtggt ttggattgcc cttgtcgtct atcatagaca 60
cacgttaacc ttggtccatt actactagga atgacccttc gtaaaccagt ctttaccaaa 120
gtagaaaaac tacaaccggg gacacagggg cacaacttga tcgttcaagt gatgaacgtc 180
ggtgaggtta tggaaaaagt gagaccgagt ggtgacaaac tgcaaatcgc cgaagtgcta 240
cttgacagatg aaactggagc ggtattatct acagcaagga acgaacaaat caaacttttt 300
aaaaagggag agtgtgtgac cgttcgaaac gcaaaagtca atatggtgcg aggctttatt 360
cgtttagtag ttgacaaatg gggagctatt aagccgcctg gaccaacgga aaagttacaa 420
tggacaccaa aagttgaaaa caatattttc aacatagaa 459

<210> 4579
<211> 215
<212> DNA

<213> Cyanidium caldarium
 <223> Clone ID: LIB190-041-Q1-E1-E11
 <400> 4579
 acgcgtccga ccacgcgtcc gagcattttc agcaacaata attggacttg atggaaggaa 60
 ggcagataac atatggaacg atgccctata ttatcatgga aaagtgggtga acttttgtgc 120
 atattcggct tcgtctgttt ttgaaagtgg cgaacatggc gcatgttaat atgttatggc 180
 tttggcttct aacaacttga ttttagtttt ctttc 215

<210> 4580
 <211> 343
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-041-Q1-E1-E2

<400> 4580
 ccgacccgtc cgagcgccaa ctctaggcaa actttgggtt tacccttcgg gagtgggttt 60
 tctagggtgca gctgttgttt tgtatgggtt gcaacacgat aaattgccac tagagagagt 120
 ccagtttgca aaaacctttt caaagcccgt ttcaaaagca gataatcaag ttgttcgagc 180
 aacaccggaa gaatgcgatt gtcttccgct ttggcagtg atgactagtg gccaagacga 240
 ctgtttctcaa cttgaacgtg aactgaggct ctgtatggaa cgaaacaaga agcgttctgc 300
 tcaagtgtag ataagtgtt tcaataaata caagttgttt tct 343

<210> 4581
 <211> 330
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-041-Q1-E1-E3

<400> 4581
 acgcgtccag atcatatccc ctttttgttt gtttatcggt tgtcaaagtt tggttgtttt 60
 cttggttagca gttgtacatt caacatcatc aaatgccaaa aggaagaaag aaagattctt 120
 caaagaaaga agccacaagt aaacctgcag cagcagatgc tacaagacg acagaaaagt 180
 ctggtccgga agccaagttg aagggaactg gtgcaaagaa acaataaaaa gttgactatg 240

catgtgcagt cctgttatgt tttgtgagtt ctgtttgata gtttccagct attcttttgg 300
tagtgaataa agagaaaatt ttttatattt 330

<210> 4582
<211> 433
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-041-Q1-E1-E6

<400> 4582

ccgggtcgac ccaagcggtc acccagcgt ccgaaccaat aaatcaatgt cgtcttggtg 60
aaagccttcc acgccaatgg aatattaaaa gtggcgactt tatcaaggga acatcaaaca 120
acagcaacaa caacaacatc aacattcgct accacaacta gagaataata aaccaagtca 180
actgggtagt atttcggtat aaacgagaga aaatattatt cccacgggca accttgctct 240
agactggaca acactttcgg acaacttgtc attgttgtct catcaccctt caaaaactac 300
gagtaattaa acaacagagg aacagacggt tgatattgga agatcaaacc aacatcaaca 360
tcaacaaccg tataccacac cgatggaaca ttgactgtg ccactagaca ttactttgaa 420
aaacgccatc aag 433

<210> 4583
<211> 257
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-041-Q1-E1-E7

<400> 4583

agatttgtcg gattgacttg aaaaagagga agaatgggaa aggttcacgg ttctcttgct 60
cgtgctggta aagtacgagg tcaaacacaa aaggttccga aacaagaaaa gaagaagcgt 120
ccaaagggga gggcttggca aagactcaag tacaataggc gttttgtgag tgttgttgtt 180
ggttttggtg agagaagagg tccaacgcc aactcgtgaa gcgactgcaa tgataaagac 240
aatactttac agcgttt 257

<210> 4584
<211> 433
<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-041-Q1-E1-F11

<400> 4584

ccgacgcgtc cgaccacgca tccggagaga atgctgggtg gagtagcgaa acacgagaag 60
ggaagtaaaa ggtaagaaag aggaaagggtt tacgagagaa tgaagtagaa agaagagagt 120
gtaaggcggc gtcataatag aaatccgaaa ggagtagaag aaaagagaga gaagaaagaa 180
aagaagagaa aagccgtact gaagaccgac acaggtactc gaggagaaag gagacccaaa 240
ttaagggtgag agaatggacg ataaggaact aagcaaaagg atatggtatc tgcggtagaa 300
catatgaaag aagcagcacc gactgttttag caaaaacaca gcactctgca gaaaagagaa 360
aatgtaaagt atacagtgtg cggcctgcc aatagtagag aagaaatcga tgaaagtgaa 420
agcgagtaaa aga 433

<210> 4585

<211> 459

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-041-Q1-E1-F2

<400> 4585

attcaagggt cgaccgacgc gtccgatcga catttttaat ttgcatgtat gagggtcctg 60
tagaggacaa catgacgagg acgcctcggc attcatataa ataaactatt tctgcaccaa 120
aagaatagtt aaggatctan gccacaaatt aacagggtaa gggatatgtgc agaaccgttc 180
aagtgcgaat tcgaggcttt agggctatcc ttattttga tagagcttgg ttctcgtccc 240
acatcaaaat tccaaacgat agtaaaaaca aatagtttgg catccgcttg aatctttcaa 300
taccctatc ttatcattgt aatgaaggat tttgagttgt tttactgggg tggaagatca 360
gaaggaagaa tggtttctac gacagaagaa tatcgcatgg attaactaca agtgaagatg 420
attgggaact cttttgaaac gctatgacag angatatac 459

<210> 4586

<211> 427

<212> DNA

<213> Cyanidium caldarium

cgggtctagaa ttccccgggcc gacccaagcg tccagtggca tagagaaaaa agaaaagaat 60
 tgggatgctg cctgccgtga aacagtggag gaagctgggg tatctggaaa gattctttgc 120
 aagttgggca agtggaaagg ctccaatgat caaaagttga tcatgtactt gctattagta 180
 gaacaagaac tgacaaagaa tgacaccaga tggaaagaga ggaatgagcg acctcggaga 240
 tggttaacgt ttgacgaagc agagaagact attttgcaag tggagagtgg tattcgaagg 300
 cctgagctat tagaaatgct tttattagcg aaagcaagaa tattgacttt ggacactact 360
 ccagagtctt attccacaga ctcttctcct gaagaggaga ataacgaaaa ggaattttta 420
 cgtgttgt 428

<210> 4589
 <211> 453
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-041-Q1-E1-F6
 <400> 4589

ccgggtcgac ccaagcgctc aataatattt gcatcttttt ggacttttga ttgacagtg 60
 tgggtgtgct cagtcagaac tgcttctcag ttagttacgc aatatgccta gtcataagga 120
 acaaagtaca ggaattaaaa tatcagctga cggttacgca ctaaagttga gcggtattcg 180
 gttggacgta gacggcagtt tggtcactat ggtggacgca gacgacctca gagccctcat 240
 gtttacggaa agcctcaagg aaaagtcaaa gctgcatgac ccaaattttt tcaaaagcta 300
 ttatgaggag aataaggact acttttatta tatgactcat acggagaaga aaatgtatct 360
 ttctctggaa gttgcacgag aatacgctac tctggtggga aactcgtttc tgcagaaata 420
 tttggacaaa gtcattgagc acgaacacgc ata 453

<210> 4590
 <211> 429
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-041-Q1-E1-F7
 <400> 4590

tccccgggtcg acccacaacg tccaccacg cgtccgggcg tttggctatt tgttacacac 60

acacacacat atatatatat atatatatat cgttattgcc atcttgctgc cgatggcttc 120
tcgtcgagat tggaaagata tagctggagc cggttcttct tgtttcttgt ccttttttagc 180
acgtatttta ctattttctg ttgccagtt gggttgggag ttttttcggt caacgccttg 240
gagaacaata ttggaaggac cgttgtgttg tcttttcaat tcattcggtt tggttggctt 300
tggaaacttg gaaaattggt tggttttcaa acaaataccg gtttatcaa aattggtaaa 360
atttttggaa ccaattttgg gtttggaaact tacaatacac ccgttttttc caacaacttg 420
ttggttaatt 429

<210> 4591
<211> 446
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-041-Q1-E1-F8
<400> 4591

acccaagcgt ccagccatgg aacaaaaacc tattttatac tcatactgga gaagttcttg 60
ctcttgagga gtccgaattg cgttggcagt gaaaaatata gactatgaat acaaggctat 120
caacttggtta aagaacggag gtgagcagt gggatcggag tatgagagac tcaacccaag 180
tcacactgtg ccgacgttgg tcgtggacgg tcatactatt ggtcagtcag ttgccattat 240
ggagtacttg gaagagaccc ggccacaagt gcccttggtta ccaaaggacc cggctcagcg 300
agcaaaagtt cgtcaggtag tagaaacagt aaatgcggat acacaaccac tgcaaaattt 360
gaggggttctg cagtgggtac agaaggaggc angggaggaa aagagaaaacg cgtgggtaca 420
acattttctg acgtcaata tacaag 446

<210> 4592
<211> 423
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-041-Q1-E1-F9
<400> 4592

cgtcgcgaca cgcacgggcc cacgcgtgcg cccacgcgtc ggcctacgcg tcagcccacg 60

cttccgcttg gatgctactt cagttggaga tgaacgtgga tttgcaccca acattcatga 120
attggaggaa ggagtggagt tgttggtaga agccattgag aaggcatgac atactggtaa 180
agttaagatt ggcacgact ctgctgcttc agagtttttg aagtctgagc gttccagtta 240
cgatttggac ttttaagaatc ctagttcttc agatgctcat ctcaagtcca ctgaacaatt 300
attgaattta tatgaagact tggcaaagaa gtttcctatt gtttcctttg aagatccttt 360
ccatgaagaa gactttgatg gctttgcaaa gatgacaaaa gtgttgggaa aggactatca 420
aat 423

<210> 4593
<211> 448
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-041-Q1-E1-G1
<400> 4593

ggtcgacgca cgcgtccgac cacgagtcg cccacgcgtc cgcggacgcg tccgcccacg 60
cgtccgcccc cgcgtccggt cacctttttt aataaaactt gcatgggtca aacttacta 120
ngaggagcac aaacttgatc tacgacagat tcatctaat ctacagaaaa tatgtcgtcc 180
aagtgaaggc ttttccatt cctttccact tgagcgtttt ccttatctga ctgagagttc 240
ccagcanatg atttggaaaa ggataaagtt gtggacaacg gaacaaccgt ctttgtatct 300
gccgcccgtc ctgcacgttt gtcgggatga ccagactcgg aaaatatatt gcggagatgt 360
tccttttctc caaacagtcc aaagtcgacg tcgttctttc gttgctctgt gaaagaattc 420
ttgacgttac gatcgttcct actcaaag 448

<210> 4594
<211> 452
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-041-Q1-E1-G2
<400> 4594

ggtcgaccga cgcgtccgaa tggttaaatt aagtattggg attagtgagg caaatccaac 60
tgaacaacta aatattttct ggtttgaaga tgtggaaaca tttagaacct gtcgatatca 120

taagaccagg cacttgga tgcgaatgca catcttgcg ctcctttcgg ccttttgcaa 180
 aaagagtatt cgcgatggaa tatctttcca cttctcgtcg aaaagttgct cggattcttc 240
 tggtgaaagg tcccaaaacc tgaatttctt caactcgaga gacacaagtc agtgatgggc 300
 ttttaaaggg tgaccgttcg ttgccactat ggaacccttg tgaaactgaa actttgcaac 360
 tggactcgta gattgctcct tagtacaaga aagaattcgc aaatcccgaa cttggaatac 420
 ttctctgtca tcaccagaca ctaataaatg ac 452

<210> 4595
 <211> 408
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-041-Q1-E1-G3

<400> 4595

attcacgggt cgacgcacgc gtccgattca cagttttcct ctccgctttg ttcattgtga 60
 acacgagtat cgcactaaca gttgggaaga atccttggtt tttatgggtt ggctattat 120
 caacgatggg acccttaatg ccctcaattt ttacaagaat cagtatccca caaatatgta 180
 cctgttgggg gtctttacgt ttggagagtc ttttatggta gcaactatctt gttctctgtt 240
 tcgttcagct ggacttggcg tcactcgtgtt tgacgccttt ctacttactt ccttggtatt 300
 cacgagtctc actgcttatt gtttctacag taagaaggat ttctcgttcc ttggaggctt 360
 tttatgggct ggattgctct gtctgttcgg tgctgcaatg ataaatat 408

<210> 4596
 <211> 406
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-041-Q1-E1-G4

<400> 4596

ggtcgaccga cgcgtccgag gacgagtggg cggacgcgtg ggtggctagt ggctccaaga 60
 gcaccaagtc caacgaaaaa gtccaaatca cattagaaca agatgaagag tttcgcgaag 120
 cttttacgtt attcgacaca gacgggggatg gtaatatgag taaaggaaact cggtagcgtg 180
 gtccgttcct tgggtcagag tcctacggaa gcagagttga aagaaatgat agcagaagtt 240

gacaaggatg gaaacggcac catcgacttt caagagtttc tcgacttgat gtccaggcat 300
atgagacaag cagatacaga cgaagagata cgtgaagcgt tcaaagtttt cgataaggat 360
ggaaacggtt atatttctgc cgcagagctg cgtcatgtta tgacca 406

<210> 4597
<211> 373
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-041-Q1-E1-G5
<400> 4597

ggctctggaat tcccgggttg atcgacacgt caaggcaagc cacgctttat acgtctcggt 60
ttatagaaaa agaccttttt attgggtagg cttctaagca gccatgtaat aatgctgtct 120
tccgcacatg gcattgtagt atttgcacta actcgaactt acgtcagatt tccggttcac 180
acatggtcgc cagtagcaga acagctggag gtgacacact tttggtgaag tagcgacaca 240
agcaaatgga atctgaatcg aagacacagg gggagtctac gaaaccttgt agtgttttgt 300
taattatcta cggcagcctc ataatgcaat tcgtacatga gtacgttatt aagagtcaat 360
ccaggaatga ctc 373

<210> 4598
<211> 415
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-041-Q1-E1-G6
<400> 4598

ccgggtcgac ccaagcgccc acgcgggaat acagcgaaga gtcgtcgcgt accgagtcga 60
gtatacgaaa gatgacgacg acaggtggta agaaagcgta gcagcgattt gttcgtgtat 120
acaaaacttt ttacgcgaca ctaggaagaa aacgtactcg aaatgtggaa gacgactagg 180
ggatggacaa agatatagat atatatctat atatatgtag acatgtgttt attggatggg 240
ttgtttttgg tgtctatttt taatctgtct ttatagagcg ataaagaata cgaaccaacg 300
tcaaactaaa aaaaaaacat aaaatgaata cataaataaa aatcaatcca gaaaaaacat 360
caaaaaaaaa cctataggta atgtacacaa gtgaaaaggg gcggacgctc tacag 415

<210> 4599
 <211> 454
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-041-Q1-E1-G7

<400> 4599

tcccgggtcg acccaaactg ccacccacgc gtccgcatcg tgatgccgaa taatgtgtct 60
 gcagtgaac gaagtgtgt agagtcttat ggtggaatag ttgttttatg tgaaccaaact 120
 ctaccagctc gggaatctac tgcagaaaaa gttgttcggg aaactggggg agaatacata 180
 cctccataca atcacgtaga tattattgca ggccaagcaa cggttgcagc agaactattg 240
 gagcaagttc ctgatttaga tgccattatt gtcctatcg gcggtggagg actcgtgtct 300
 ggcacgtgta ttgccgcaaa gcatttttct tcccggtgta aggttttggc agcagaacct 360
 gcaggtgcgg atgatgcgaa gcggtccttg gaaagtgggtg tccttattcc acagacaaac 420
 cctaaaacta ttgccgatgg acttttaaca agtt 454

<210> 4600
 <211> 435
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-041-Q1-E1-G9

<400> 4600

ggtcgacgga cgcgtccgac cacgcatccg cccacgcgtc cgcacacgcy tccgatgttg 60
 agctggctac aaaaaaacca cttgctagtt gcaatattac aagtgtcaag aatgtttact 120
 ctttatcgag tcacagtgcg tcttttcccc taatctttct ttttcggtgt cgacgacgtc 180
 gaactaccta aaacgcaaag cagcaaagtc ccaaagtttc gactcttttt gtttctccca 240
 ctagccatat tgaaccaaag tgttttgcac cacttgccac gacaacgatt ggttcactct 300
 cgtgtgtttt atcttgacaa aactcgaaga ctatttattt cttgttatgt tttagagggt 360
 tttctagagt gtgtttttgg agttgttgta cttccagtct tgggtggttg tgaatggttc 420
 tagtgacaaa gagaa 435

<210> 4601
 <211> 462
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-041-Q1-E1-H1

 <400> 4601

 cgggtcaagaa ttctacgggtc gacgcacgcg tccgagtgac tattgtagtt tttgtccagc 60
 ggatgccttg ggaggaaaat gtccttttggg aaggaaggac tggtatataa ggagaagagc 120
 tgaaattctt tgcaataatc ggggaatcttt tcgtagtaga ttatcaagtg tgatcatgtcc 180
 ttgcactatc gatgactatc agtgcgatat tgggttatgaa agaaaacctg gttccacgga 240
 atgtcatcct tcctatggta ccaacgattt ttctagtcac tgtggacatt tggaaagcaa 300
 aggctacgta cttattccag gtgatacatg cgatgctaca aagggtctca atctactgcc 360
 tagtcgttca agttgcattg catattggat ccgacgtatt gtatacatcc tatttttggat 420
 attaagtatt ccaatgttta tgttttctat gatgttgta ac 462

<210> 4602
 <211> 445
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-042-Q1-E1-A10

 <400> 4602

 tcccgggtcg acccacacgt ccgcttggag acgtgagata tcttgttggc agcaattgca 60
 atccattttc gatatgctca attctactgt ctttgactcc tccgagtcgt cattgtttcca 120
 tggaggaaat tggagagtag aagcttttgt attttctttg ttttatgcgt tttatcgtec 180
 tgaatgtgcy atatctgaag tgtatttaca agagttgatg aggaaatatac tttgtttctga 240
 agtcatgatc gttcgtgcta tcgttcaaag aattgtccat ctcatgatcc aattgtccaa 300
 acatagagaa gaggagaaat ggagaagcat tgttcgtcat ttgttttctg acgagtcatt 360
 tgtagagtcg ctattgaaaa cgatgtgtca ggattcatcc ttttatgacc ccaatgagca 420
 acaacaatca tctgcgagta ctttc 445

<210> 4603
 <211> 334

<212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-042-Q1-E1-A11

 <400> 4603

 cgggtcgacc caagcgccg accacgcac cgcttgtagc ggcaatgtcg tctacttatt 60
 aagattcaga atacgcaaatt attcagctca atatctatcc cacatgagat atgataatcg 120
 gtggtgatta caggcaagtt gccattaata tatccccaat gcagccttta caaccattt 180
 cttagaatac tatgcaaaat attgtccac gaatactgat tcgaagtgtg ctgtacagag 240
 atgagtgtgc cactttggat ggttttggaa ggataccac ttatatatat actcatatat 300
 gtatacatat atgtagatta ggaaggtagt gatc 334

<210> 4604
 <211> 334
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-042-Q1-E1-A12

 <400> 4604

 tcccgggtcg acccaaact ccaattataa cagatgaaaa tagcgagca tatttcaacc 60
 aactaaattg cagttttaga ttgcaaccag ccacgactaa ttatgtgcta atttataaag 120
 acaacgttca cattaaaaaa aaaaaaaaaa aaaaaacaaa aaaaaaaaaa aaaaaaaaaa 180
 aaaaaaaaaa aaaataaaaa aaagaaaaa aaggggagta gagcaagagg ttagtaagggt 240
 acagaaaatg agcatggtag gtcaaaatcg tttagaaaaa atggcataca cacaattaag 300
 ttggacgtct ttttacacag tcgtgaatgg gaaa 334

<210> 4605
 <211> 446
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-042-Q1-E1-A2

 <400> 4605

 ggtctagaat tcacgggtcg acgcacgcgt ccgaccacgc gtccgtcatt ttgtttccca 60
 tagcaacgaa cctgtatttc gtgtatttca caagtgcac atgtgctgct ttttagaaca 120

aagaatagtt gtctttcggg atggcctttg tatactgaaa aattccaaca gctggttggt 180
 gttggatgct ttgcgtgata tcacaaaaca tgaaaaggac aaagaaaacc cgttcttcta 240
 tttctttgcy gtttgtgagg cgttgatgaa tttatggcga caacggatga acggcacgtt 300
 ggctggttca tcaccaccga gaaatgtatt tgctttgact tggcaacgag aacagtctct 360
 ttcccatgca caacagttgc gactcgagtt gaacgagttt tgtcgaggaa tatcttttcc 420
 tttcatgaaa agatggaaaa tgcgat 446

<210> 4606
 <211> 465
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-042-Q1-E1-A4
 <400> 4606

gtacggtcca gaattcacgg gtcgacgcac gcgtccgagg tgaagcaagg agaggcagag 60
 ataaccctcg aagaaggact ccctcacgag actgtgacat cttcacaaga gacaaaagat 120
 gaaggccccg aaacaaagcc aaaccgcttt gcaattactg gccacacaga ggaggaaatg 180
 gatacagagc taagcaagct tgatgacgag aacaaccggc tgcacaagaa aagattactt 240
 acttccacgg tctttggtaa ccctaaacat tttatatggg tctttgcatc gtttgcgagc 300
 atgggaggaa ttctgtatgg tattgaccag tctttgataa gtggtgctgg tatttatatg 360
 ccagttgacc tacacattga ccagaataga gaagacatgg ttactggatt tatgccactc 420
 ggtggagtat ttggtgcttt aatggtatgg ccaatcaacg aactg 465

<210> 4607
 <211> 436
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-042-Q1-E1-B1
 <400> 4607

aattcacggg tcgacgcacg cgtccgacca cgagtccgct cttccttata ttctttgtgc 60
 ttggacaatg gttgcaaaga ctgctctgag ttgcctcttt ctctctttcc ttatcgctgc 120
 cgcagttgca gccgacgtag tttcagagga gagatgggga tatgctcagc aaaccaaca 180

acagcaacag tgccaacaag tatgtaaaca gtatgcatac tatcagagtc cagtctgcac 240
 ttccgtaacc acacagagcc catactggac ccaatgctcg aagactgtgc aaacctttgt 300
 cccaagccag tgcagtactt ataccaatc tctacatgg acctattgca gcacctacac 360
 caccactagc gtaccatccc aatgcagcaa ggccgtgact acctatactc aaacctgctg 420
 tgcttatgcc caacaa 436

<210> 4608
 <211> 441
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-B10

<400> 4608

attcccggt cgacccacac gtccgttcac tttggtctta cttgacttgc gactgaagga 60
 aatggaaagt acgaagaaag ctgccacggt tagatatggt tctcccaaag gcaacggttc 120
 ggtgggacga agtcatgttc acaagtcaa gagaaaccac ttgaaaaaca aacttgtag 180
 cttgtttttt gaacaaagtc aaatatgcaa agcagattat tggaaacttgt tactgttggt 240
 ccttttagct ttcaccacaa gattctggcg tttgttttac cctgctgctg ttgtatttga 300
 tgagtttcac tttgggaagt ttgtcacttg gtacttcaaa catcagtatt atttcgacat 360
 acaccctcct ttaggaaagt taatactata tcttggtggt ttgttaggtg gatataatcc 420
 tggttttttg tatgatgcta t 441

<210> 4609
 <211> 455
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-B2

<400> 4609

ccggtcaaga attcacgggt cgacgcacgc gtccgagtga aacgtgaggg tagttcatca 60
 tggttgagac aaaacttcaa gatggtgtta gtgcttctct ttggactgtt cgtctcttcc 120
 tctacacagt tatttttagca ttctctgcca ctatcattgg cttggatgga cgtaaagcag 180
 acaacatatg gaacgacagc ttattctatg atgggaagta cattaacttt tgtgcttatt 240

ctgcctcttc tgtttagaa ggaggggacc atggagcgtg taaatatgtc atggcgttgg 300
 cgtctataag tttgattcta gtctttttct tgtggctttt tacatttgta gatgcgttgt 360
 atcctattct taccaagttt tggtttattg aattgggtat caacgtgttt caaacaatgt 420
 ggtggttggt tggagcaatt gttgtatctg caaaa 455

<210> 4610
 <211> 431
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-042-Q1-E1-B3
 <400> 4610

attcacgggt cgacgcacgc gtccgaccac gcgtccgcc acgcgtccgc ccacgcgtcc 60
 gccacgcgt ccggaagtaa atagacgttt gaaaggcgtc cagtatgaaa ggagaaacga 120
 gtgtagcact gtctagtcgt ccaactcagc gaaacagcaa taactgtgaa aatgcagtaa 180
 actagcagta ggacggaaag accccataat tcttgactag ataggtttag ggaggagaga 240
 gaatcatgaa gtagaggagg tggggtaaga gatgaaagac cactgcatga ggataaggaa 300
 tctaactgag taaggaaaat aagcttaagc tagtttggct ggggaagtaa agcctaagaa 360
 agagtaaatt aggcaagcaa aggcattgaga gaagtataat agcagaagca tgcttgaaga 420
 aaaagaaaga g 431

<210> 4611
 <211> 451
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-042-Q1-E1-B4
 <400> 4611

ggtcccagaa ttcacgggtc gacgcacgcg tccgaccacg cgtccgcctt ggtaccagta 60
 tggcgtcggc tattcacttc aaaatgaagt cggaaaaaga cttttcgacg ctttcttttg 120
 acggcgactt tctcaaagtt tcagacctca agctgttagt ggtagaaaag cgcaagctaa 180
 attatgggga tgggtttgat ttggttatca cagatgcgca gaccaatgag gaatatgcgg 240

atgagtccac gttgattccg aagaacactt ctgtagtgat aaagagggta ccagggcaaa 300
agccggggggg tattcttttcg caacaaacgt tggcgcgag aaacgaaagg taatcggaga 360
acgatttggc gaagatcanc aacaacaaca actcgacgag tgtggaaagc tcgtctggag 420
actaaaccaa gcatggtgga aataatatca g 451

<210> 4612
<211> 450
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-042-Q1-E1-B7
<400> 4612

ccgggtcgac ccacacgtcc gccacgcgt ccggttgatg aaacaacttt tccacgatga 60
tatgtttcga gttggcctgg taaaagacgt tgcaggagtt caagtttgtg gtgctctaaa 120
aaatgtgatt gctttgggtg caggcttttg tgatgcttta gaaatgggaa acaataccaa 180
atcggctctg atgagaattg gactgattga aatgcaacgg ttacaaaga aatattattc 240
taatgtgaag ttggaaacgt ttatggaaag ttgtggagtt gccgatttga ttactacttg 300
ttatggtgga aggaacagga aatgcgcaga agcctttgta agaaccaaga agtcttggga 360
agagcttgaa gaagaattac tcgggggaca aaagctgcaa gggacgacta ctgccanaga 420
cgtttatttg actttaaaga aagacaacgt 450

<210> 4613
<211> 267
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-042-Q1-E1-B8
<400> 4613

acccacacgt ccaaccacgc gtccggttga tgatgcgttt tttcctggat gatattgttc 60
cagttggcct gttaaaggac gttgcatgag ttcacgtttg tgggtgctcta gcatatgtgg 120
ttgcgttggg tgtcagcttt tgtgatgctg tacacgttgg aaactgtact aagtcggttc 180
tgatgagaat tgtgctgatt gagatgctcc ggtttacagc taattattac tctaattgtg 240
cattggaaac gtttatgccg ggttggtt 267

<210> 4614
 <211> 158
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-C1

<400> 4614

aatcacgggt cgacgcacgc gtccgaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60
 aaaaaaaaaa aaaagggagg acgcacaaaa agataaaaag gttaaataca cgtggaggcg 120
 acctcaaagg tcttctagaa tgtcacctaa attcactt 158

<210> 4615
 <211> 402
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-C11

<400> 4615

tcccgggtcg acccacacgt ccaatgggtg gaactggttg tgctggtaga attggttacc 60
 gaggctgca gagactaaag ccatttaagt gtaaagaatt gctatattcg gggtatcaag 120
 ctctttctcc cgaaatggaa agcggagttg gagcgaaacg cgtaactttt gaggagttga 180
 ttgaacgctg cgatgtgatc actagcaatt gtctcatca tgacaaaaca aggaatctct 240
 tcaacaaaca agtatttgat aaagtgaagc ctggtgttta cattgtcaat actgcaagag 300
 gcgctagtgt agatcgagat gcgttggtag aagctgtgaa aagtggcaaa gtaagaggat 360
 atgcggggaga tgtttggtat cctcagccag cgcctaaaaga tt 402

<210> 4616
 <211> 365
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-C12

<400> 4616

ccgggtcgac ccaaacgtcc gaccacgcgt ccgcccacgc gtccggtaaa ctagaatacg 60
 aagtacaacg agggaatgaa cggaagttat ggcaaaaaca gctaccatca gcatcggtag 120

cacgtgcgca ccaagctgta gagcagaata actgggtgta aaggtcagta gtagagatgt 180
 gtgaaaggta aaagataggc gagatcgatg atccgcatca agtgcagaga tcgctacaca 240
 tcagcaagaa agaataataa ggaagagaca ctagatgagg agatagtga tacgacgtga 300
 agecggaatag gaaatcgtgt agtctatgca ataaactgtg gaatgtgtca gagtaagagg 360
 agtca 365

<210> 4617
 <211> 395
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-C7

<400> 4617

ccgggtcgac ccacacgtcc aatatatcgt tgctgaggat gaagcaagtt gggaaaagtt 60
 gtggagagga aaacgcgagg tcattggata tactttggaa gcagctttac agaaaacttg 120
 tattgtggaa aaccagttga gggaaatggaa aaagaaactc gatagtctag cagacaatta 180
 ttcgttgggt acgagagcct atgatgagag aatgtgggtca ttggacctca tcgcaactat 240
 tatgagtgtc tgttttgcag tttttggaat gttttcacia ttctttgggt aatatgtcca 300
 attgcccatt tacaatatgg gaaatgcgag tcagtattac ttttatggcg tgatgggagg 360
 tatttccgtc ggctgtcga tcagcgtcta tttct 395

<210> 4618
 <211> 296
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-C8

<400> 4618

tccccgggtcg acccacacgt ccaaaagatc ggagcagaca gtaaatgaag ttaggaaaca 60
 tatgaaatga cgcagattca aggcccgtgt attcaattta gtagcagcat ttacagaata 120
 cttgtattgg gagtcattcg atcagggaat tgaaagcgca acacggaaac ccagcacact 180
 tgtctgcaat cggtaagagg ggtgaatgac gctagttaat cgccattaga cctcaaccct 240
 tacatcacca gtatcgggtt gcacgggtgt cgaatgatct tactgttcag tgacaa 296

<210> 4619
 <211> 388
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-042-Q1-E1-D1

 <400> 4619

attcacgggt cgacgcacgc gtccgaccac gcgtccgccc acgcgtccgg tttgccaata 60
 aagacgacaa cggagggtgca atgccattt attggttgga gatccaagcg tcgtattctg 120
 ccaacgtaca aaggataagc gtccatagca actatatatg gcacttgag ctacaatgta 180
 tgcaatgtag tgaaaaaacc ggggtggattg cagtcgatcc tttgcaggaa acgacaagag 240
 tgaaaagtgg gatttgtcac gtattgtttc actgtcgact atgtaaaaga caaggtacgg 300
 tgacattgtt ggatgaacct caccaatatg acaagaatga agagtttcaa aagtttgcca 360
 gttttgattg tcgaggactc gagccaat 388

<210> 4620
 <211> 409
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-042-Q1-E1-D10

 <400> 4620

ttcccggtgc gaccacacgc tccgaccacg cgtccgccc acgcgtccgtt gggcacgagt 60
 tgacgattga acgaagccat gcctcccaag gcacctccct acaagataaa aggagttatc 120
 gaatactttg tttcacggaa tgaacagaag ctattttcag acttgacgga tataaaactt 180
 ctgacgacga aagctagaag aaagggtggcg gataatctcc cttccatgct ccccggtatt 240
 ctactgtttt gtggttggtta ctttgggtggc tattatgtgc atgagcagag gatcaagagt 300
 gctcgggtgt aggcgtcggg tgggtgtgtt gtgttggtgt gtgtatgaaa caatgacatg 360
 aaaaccatgc tttattctaa aaaacacgtg gatgccacat gtagattg 409

<210> 4621
 <211> 369
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-D12

<400> 4621

ccgggtcgac ccacaacgtc cgaccacgcg tccggaaaga cgcagatatt gaacctcatt 60
cctgtagaag acagatccga ctacctgtgt gccatggcaa gttaagggag tagatcacga 120
aaccacgctg aaggcaatcc tagtgagaga atgagtcatt tgaatgacat caccacgct 180
agtgatcaag cacagtgtca cagctcatal ctagggcaca ctgtctcaac gactgaacca 240
ggagacgtcg aacatccagc aggtcagctc tctcgtacg atcgaaacgc aactccactt 300
ctaagcaatc tgattctcct ccaacagcgt taccgctcat ccgttcaagc gatatactag 360
aagtacgtc 369

<210> 4622

<211> 406

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-D2

<400> 4622

cgggtccagaa ttcaccgggt cgacgcacgc gtccgaacgc aaatacggga aagcagtagg 60
agaacaaaga gaaacgacaa cactgagtat caggacaaat agagggagta gatgaagaca 120
gcaagatcag cgaactatga gtaggaaaag agtacagtgc atcgaaacat gacactagct 180
gcagaagaga gtgtaaagcg cgtacctttt gcagaatgtc ccagccagtg caatacgaag 240
cacgacgaaa gatgaaagaa gtagccatgt cagacccgaa gccacttgat cctatgctgt 300
ccacgcgata taatgctgaa ccagtatctg tggcaacaga ttggaagag atggcataat 360
gagtgaatg ccaatcatga ctagtataa ctcgtactcc tcgaaa 406

<210> 4623

<211> 416

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-D4

<400> 4623

gtccagaatt cacgggtcga cgcacgcgtc cgaccacgcg tccgcccacg cgtccgattt 60

tctgcctgcg ggtgtgtgtg tctgtgtgtg tgtgtggtt tggttattgg gatgtcagac 120
tctgcaacac ctaccaaacc tttgattggt aagaaagctg ttgtaactgg aggaaacaag 180
ggtattggag aagctatata tcttgctcta gcagaaaaag gagcggatat agcaattatt 240
gctcgagata cggattcagc tcaaaacgtg atcaagaaag tgcgttcaga gagacgtttc 300
tgtaagggtt accccgcgga tctcaatgac tctgcttggt tgaggaaagc agcaaaggag 360
atactggagg atatggggag agtagatatt ctagtcaata atgcgggtat gtctca 416

<210> 4624
<211> 441
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-D7

<400> 4624
ccgggtcgac ccaaacgtcc gactcaacga cgtaatgaga ctactcatt ttctctttgt 60
tttgtctttt gtagctgttt tctcgtagc tcatgcagtt cccgttggag aagatgcatt 120
cagtttcagt cagacttttg gaaatgcttc tgcttcaggc aacgcctctg ttattccagc 180
tacaaccaag atccccaagt tagaagtaac tagtagtgcc tcatcaaagg acaatggaaa 240
agcagctcaa gtagactttg cagattactc aaagggatat ccttcgccta gctattttta 300
cgctccttct tacacatcct atgtggaatt tctcaatat ccatcctate catcatggcc 360
ttcttttaat gagcagcctg cctttgggtg cttcgatccc aatgcagagt ttggagagtc 420
tgaaattttc gtgtgatggg a 441

<210> 4625
<211> 435
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-D9

<400> 4625
gggtcgaccc aaacgtccga ctgcctgtat cttaacagga tggattggcg aatcagaaaa 60
tagtttgcca aaaaatgttc gtgtctcact ccgtacctgc aagaaactta ccggcttttg 120
cacgtaactt ttccaatgtc tgtctctcga ggagtgggtc gagaggggga tgtttacgaa 180

atgtgaaagt tttcaaccac aaacgacctg caaggttggt atctacgaaa atgagaggag 240
gcgacatga aaggagagaa cttagtcgtc ctatgcgtac gcttgattcc gctttcgatg 300
aacttttagc ttttgcgcaa gatccctggg ccatgtttcg ctctccatgg agtctgtcgc 360
ccagaagtat ggcagtagac acgtggatgc ctctgttga cttgggtggat aaggaagatg 420
gcttttatgc atacg 435

<210> 4626
<211> 125
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-042-Q1-E1-E1
<400> 4626

tttttttttt tttttttttt taaatggaag caacccaact ttattattca aagtcattac 60
accgcggaaa gctccatcga taagcatcta taagtcggt cgaggagcat tttttcgcat 120
ccagt 125

<210> 4627
<211> 372
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-042-Q1-E1-E10
<400> 4627

tccgggtcga cccacacgtc cgaatttacg gaggtttgga ttaaacacat cattggctgt 60
ggctcgaagc caagttagag acaattagag ggaagcagtt ttgttatgag tcttcttttt 120
tgctacacta caagaacatg ggtgaaaaca gaagtgtaac gtccgaaagg tcaaacgaaa 180
agcagataaa tgcgttgaat gaaacacgaa aacagcatat ggccagaaga gcttttggga 240
aggcatttcg aatttacaac atagcaatcg agttgggccc gaacaatgcc ttattgtaca 300
gtaaccgctc cgctgcctac ttcaacttga gaaattttga agcggccttg gaagatgctc 360
taaaaggcgt tc 372

<210> 4628
<211> 457

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-042-Q1-E1-E3
 <400> 4628

gggccagaat ttacgggtcg acgcacgcgt ccgacacgga ttaaatcgac attattattc 60
 tctggcagtg gcttatcgta agaacgagct ggaggaacaa atgttgctca atttgcataa 120
 gaaacactgg agcagaggct taaaagtgc agactttgaa gagcgagctg agaaaaatga 180
 aaaggcagtt cagtccatgt tggagttggc aaagagttat agcaaaatgt tggaagaaga 240
 acgtcaaagt acaaaggaac aggttgcaat tgcaaatgtt ggcaaagtag acgcaaagaa 300
 acggttggag caggatgtga cggagttgat gagtaagaat attgatcagt gtttaagtcc 360
 catgttagat tctgttgttt tccaacaagc ttgaccttca acagttgtag tgccttttaa 420
 atagcgggtt ggtagtgtgt cctaattgtaa agaattgt 457

<210> 4629
 <211> 430
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-042-Q1-E1-E7
 <400> 4629

gggtctagaat tcccgggtcg acccacacgt ccaatcgtac gtttcatccg gccaaagcgac 60
 tagcatcgac gactactagt agaagagtag gtgcaaggaa aaccaggaag agtaccggga 120
 ccaatgtggt gacgacaaca tcgagtcctat cggaaaagga agaaaaaaga caacaactgg 180
 caatgatgga tgaaccacga aaattgacga gtcgagatgc catcaagcgg ccatcgagaa 240
 tgacgacgac gacgatgacg agtactacta ccgcaagcaa tagttgagaa tctccatcat 300
 acatacacat agagagagag agagagatac gttcatcaca tgtgtgtgta tggtggcatt 360
 tgtgctcgaa tagatatagc ctcatagan aagtaaataa aatgagcagc aacacaactt 420
 anaataacac 430

<210> 4630
 <211> 419
 <212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-E9

<400> 4630

cccggtcgga cccacacgtc cgcaaatgcg gaggtagctaa ctattttgat tgctgcttac 60
aggaagcttt ggaatggcga ctccaactc agaagatgac agcgtttgga aagaaatatt 120
ccactcattc accagcagat ggtagcaaaag gctaaaacgt cttccagagc ttccttcgta 180
tattagaagt ggtgctgctg gggagtcggt gacaagaaag ttccatgact ggaaagaggc 240
agttgtggca aatccttatt ctgctgcagc ttatgtggtg acttttgggtg ttctgtatgg 300
gaggcttcta tggacaataa gagggtcaag aatagaagag gctaggatca gacgtacttt 360
tcaggaattg aaggatcgac aagctcgaga aaaagcaata caacagcttc gtgaacaaa 419

<210> 4631

<211> 373

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-F1

<400> 4631

cggtagtagaa ttcacgggtc gacgcacgag tccgagtga ttttcagctt tccatgtttc 60
aagttttgca aggtacaata gtattttgga tattttcctt gattgggttc tttgtttgtt 120
actttttggt tgttcaagtc caaaaaacta tttattgaga gaaaggccgg tcgacgatgg 180
cgaaggaatg gatgtatgtt tggtagaaga gagagagaga ggctttgtgc agatatttag 240
atggagtctg ttacaagaaa gaatattctg gaactagaag aaagatttgg agatagttct 300
tcttctagtg acgaagaaac aaatactatt ggaaacgttc ccattgagtg gtataaagac 360
ttgtcacacg ttg 373

<210> 4632

<211> 383

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-F10

<400> 4632

ttcccgggtc gacccaaacg tccgaccatg cgtccgcgag agaagaatcc atgactacac 60
 taattaagta gaagatacga atgcgttcca caacaggatg aataaaatat gtctcgaaga 120
 agccaaagac atggccagct atgttcatgt cttgttgtct cagatgcaga gccattttcg 180
 aactatggaa gacactctac taggcagaat tgcagatatz ggtagtcata tagtcgaact 240
 ggagaagtcc atcgttgaga tgattgaaca gtctggagtg aaggatggcg cagtaataaa 300
 gtctgggtga gttactacga gaagtcgtgg ggagtaattg cgtaagttgt agtacgttga 360
 ctttctacca gcatcgctcg tac 383

<210> 4633
 <211> 443
 <212> DNA
 <213> *Cyanidium caldarium*
 <223> Clone ID: LIB190-042-Q1-E1-F11
 <400> 4633

attcccgggt cgaccacac gtccgaccac gcgtccgggg aattttgtcc gagagttgta 60
 gtctccgtca tgtcttcttg tctccagca gcttcgttct ttggttatat tgggtctgca 120
 agtgcccttg tattttcaaa tttgggtgca gcttatggta cagcaaagag tgggtgttggc 180
 gttgcttcga tgggtgttat gagaccggaa catgttatgc gatctataat tctgttagta 240
 atggctgggt tgctaggtat ctacggtctc atcgttgctg ttagtttggg tggacaaatt 300
 gccgaaacga actatccata ttttcttggc ttgacacacc ttgcttctgg actagcaaac 360
 ggtctcagcg gtctggcagc tggaatttgt attggtatac ttggcgacgc atgcgtccga 420
 gctacatctc atcagccaaa act 443

<210> 4634
 <211> 326
 <212> DNA
 <213> *Cyanidium caldarium*
 <223> Clone ID: LIB190-042-Q1-E1-F12
 <400> 4634

cctaaaggat ccacgcttac gtacgcatgc atgcaatgtc aggggcgctt ctacagtgtg 60
 atctaagttc agttcacggg ccatcgattt caacgtcctc actgggaaaa ccttgggtgtt 120

acccaaggga attgccttgc aatagatccg ccttgcacca gctggcggtta taccaaataa 180
 gtccgcacgc atcacccttc ccaaccgttg ctgggcctaa tgggcaaata ggacgcacct 240
 attaccggcc caaaaagcgc cgcggttgta atgggtaagc gcatcgtcac tgtcacagtt 300
 gctaacgccc gacggcccg accttt 326

<210> 4635
 <211> 420
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-042-Q1-E1-F2
 <400> 4635

ggtctagaat tcacgggtcg acgcacgcgt ccgaccacgc gtccgggtcga tgttgggagg 60
 tgctcgagtt gtgttttcag gaaaggctgg aactttgttc gttccacggg aatatgggta 120
 tgttattttc gttgttatat ttacacttt cactactgttt tggaaagaag tcaagggttg 180
 gcaggcacga aaacgtttca acgtaaagta tccgaccatg tatgagaaca aggaggacag 240
 tcactttaac tgctaccaac gtgctcatca gaacactctg gagaagacac caacctttct 300
 tgttcttata ttgttaggag gaatatatgc tccattttc tgttcgatat gtggactgat 360
 ttgggtgcttt ggtcgcatc agtatgcttt gggttattac tcagggtgacc caaaaaagag 420

<210> 4636
 <211> 411
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-042-Q1-E1-F3
 <400> 4636

attaacgggt cgacgcacgc gtccgacgac aattgtgcaa tgttgaaaca accggtgacg 60
 cagggttcgac tcaccaacgt gattgttggt cgtttacaga ataacggaat acggttcgaa 120
 atagcctggt atagaaataa agtgctttct tggagaaatg ggacggaaaa ggatctggat 180
 gaagtgttc aagtagaaaa cgtgttttcc aacgtatcga aaggcatcgt agccaacata 240
 aaggatttaa tggagtgttt ccaaacgacg gatattcgaa agatatgcgt cgagatactc 300
 aacaaggag agttgcaa atccgacaag gagcgcaaca ccgtgtatga aagtttggtg 360

cacgaaattg cgacaatagt agccaacaag tgtattgacc tggaacaaa c 411

<210> 4637
<211> 408
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-F4

<400> 4637

gtcaagaatt cacgggtcga cgcacgcgtc cgggttgtat tcttggtagc agttgtacat 60
tcaacatcat caaatgccaa agggaggaaa gaaagattct tcaaagaaag aagccacaag 120
taaacctgca gcagcagatg ctacaaagac gacagaaaag tctgggtccg aagccaagtt 180
gaaggggaact ggtgcaaaga aacaataaaa agttgactat gcatgtgcag tcctgttatg 240
ttttgtgagt tctgtttgat agtttccagc tattcttttg gtagtgaata aagagaaaat 300
tttttatatt taagaaaagt tgcaaaattc cgaaaaaaga acgcaacacc agtgtatgaa 360
agtttgggtgc acaaaattgc aaacaataat aacaaaaaag ggcggccg 408

<210> 4638
<211> 458
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-F8

<400> 4638

ggtctagagt tcccgggtcg acccacacgt ccaccatcac ctcatccaga tcgttggaaac 60
ttgggtgaag tgtttattct tgcaacggca cttggctggt ggctcactgc agcaactctc 120
atttacttta caactttgta caagacatct ttctggacag atacttttcc tctgtacgca 180
gattggaaga atcccaagtt gctcgtata aggcctccat acttactta tggctcctcaa 240
aatagtttta tgctaaagtc tctcatctat ctgcaagtat ctatgattgg acaagctctt 300
atcttctgta cccgtgcata ctggatgttc tttatggatc gtcttggtat cttattgatg 360
ggtgcatttt gtactgcaca gactcttgct actttcttat ccgtttatgc caactggggc 420
tttaciaaata ttgaaggagt tggctggggc tgggctgc 458

<210> 4639

<211> 361
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-042-Q1-E1-G12
 <400> 4639
 cgggtcgacc caagcgctccg accacgcgctc cgcccacgcg tccgaaaaaa tcatcgcatg 60
 agaaagaaga ctgtagctgc tcatatgaaa gcagaacata aaaaggatcg caagttggca 120
 acaagacgac aagagagcaa atcagagctg tcgtccaagt gcccatcgga gtccagttag 180
 gaagaacaag tgtcatcgat ggaagaagaa gacgtaggat tgatgtcgac tgtcattgat 240
 aagacttagt atttgtcgct gcaagttaca gtggatcctg atgcggatat tacgggcttc 300
 tttgacctac tggatgaaga aacttctggg tgtagaataa taagagtcaa ctttcatttg 360
 t 361

<210> 4640
 <211> 445
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-042-Q1-E1-G3
 <400> 4640
 ggtcgacgca cgcgtccggg aagcacctga cggaaggaa tgcttgaaga tatatattgt 60
 tacaacggag ctgcgcgcgt cattgtggag aggcgaagtt gatggtcagc tagttcttgt 120
 aaaaggctct tatttagtca ggtccattga gctcaaaaac ggggacctag tcattcgcg 180
 tgacgtggat agggacagcg atattacaat atataccaaa gtacttttca atcgggctcg 240
 attcaatgat gaaattttta ggctttcaag aactggttgt gaaggtctta tggcacgcgt 300
 gcaaggacct ccaaaagtct cactgccccca actgaacaag tggaggttca aaatgggttc 360
 acctgaaaga ttcccagact ttgatgacac tcgctgggtg attgcagaca agtatactac 420
 caacagtatt acgcctccaa tcacg 445

<210> 4641
 <211> 141
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-G7

<400> 4641

acggacgcgt gggaaaaaaaa acaaaaaaaaa gaaaaaaaca aaaaaaaca aagaagtgga 60
ggtagcacia aaggatgcaa gcttacgtgg tcgtgcatgc aattgtccgt gcgtcttcta 120
caatgtcacc caaattccat t 141

<210> 4642

<211> 433

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-G8

<400> 4642

gggccgaccc acacgtccac ccacgcgtcc gcgttttcgt gtactcggaa agaaagcatt 60
cgttcaccag aggtacatct tcttttggtg atccctaggc ttacttcatt ttctgaagtg 120
ttacgccgaa agtcagcact gcaacaacca ctttcatatt ttccgaagga agagtttttt 180
gaggcatcaa tcaatgtag atatccatct tcgtcgcagg tagccattat ttgacctccg 240
cctgctattc ttgaaaattc aaccgcaaac agagggtactg gatagtattc atcgttcaca 300
aactcacacg agtgacgcct agaagtccac aagggtttta aaagttcatg tgttttcttt 360
ctatataagt catcgatttc ttgtcttgag agtctctcta gctctcgtgc aaacaaagtg 420
ctcagagtac aat 433

<210> 4643

<211> 440

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H1

<400> 4643

cggtcagaa ttcacgggtc gacgcacgcg tccggaatat agtcatttct tatggaaaga 60
gaagaacaac agcaattcat cgacgagtca ggataaacga cagtatcatt tatccaattt 120
tatagcaatg acgggacatg tgattgctcg agcggaaaaa tggaaatcaa agccttggaac 180
agcacgtgct acttgtagta ttggattgca aggtcaaaaa ggaaaacttc gtagaaaatg 240

gtttgatttt agtggattct cttttcaagt ctcacaaact gtgggtgcac tttccacctt 300
tctatttgaa agggaagaac aaagaacggc tttgaatggc ggtttggttc aacatttata 360
tggcaactgt agaataggat tggaaaggag atggacttgt gtttgttggc aaccaatgga 420
aaccaaacta tctttgcaat 440

<210> 4644
<211> 449
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-042-Q1-E1-H10
<400> 4644

cgggtcgacc caagcgtccg agtagttcca attctgataa agaaggcttc catattggcc 60
caaactgtca acttgtagtt tgctctgttg ataacttgaa agactttttg ggtcagcaag 120
tttatgaaca actccagaaa gtatcctctg atactgaaag cgttttgaac aagttggatc 180
ctctcgcgaa gttgttagga caattattga cgagcgatgt tcctatagaa cccgattcgt 240
cccatatttt ttccaaaaca gcagataggg acgagatgga agtggaagat gtgagtagag 300
aaagagtacg aggtgttata ccttttgatt ggaaaacgtt tcttcaccag cgtgctttat 360
tgccggaaga agtttcaact cgttatgctc cgagtttttc acgtatatatt ggagataacc 420
caagagtaat tctgaggagc tcactaaag 449

<210> 4645
<211> 111
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-042-Q1-E1-H12
<400> 4645

gtccgagaaa ggaatggttt tattagatag tggagtcagt cgttttagact agtgtgctgt 60
atatattgtt tgacgtcttg aaaggttcgt cccggtgctg tgtgggactt t 111

<210> 4646
<211> 461
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H2

<400> 4646

attaacgggt cgacgcacgc gtccagtagc gaaacaagag aagggaagta aaaggtaaga 60
aagaggaaaag gtttacgaga gaaggaagta gaaagaagag agtgtaaggc ggcgtcataa 120
tagaaatccg aaaggagtag aagaaaagag agagaagaaa gaaaagaaga gaaaagccgt 180
actgaagacc gacacaggta ctcgaggaga aaggagaccc aaattaaggt gagagaatgg 240
acgataagga actaggcaaa aggatatggt atctgcggtga gaacatatga aagaagcagc 300
accgactggt tagcaaaaac acagcactct gcagaaaaga gaaaatgtaa agtatagagt 360
gtgcggcctg ccaaatagtg gagtagcgaa acaagagaag ggaagtaaaa ggtaagaaag 420
aggaaagggt tacgagagaa ggaagtagaa agaagagagt g 461

<210> 4647

<211> 466

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H3

<400> 4647

ggtccagaat tcacgggtcg acgcacgcgt ccggaatcag ggtaagaggt agaggagcaa 60
gaagagaaga gagaatgctg ggtggagtag cgaaacaaga gaagggaagt aaaaggtaag 120
aaagaggaaa ggtttacgag agaaggaagt agaaagaaga gagtgttaagg cggcgtcata 180
atagaaatcc gaaaggagta gaagaaaaga gagagaagaa agaaaagaag agaaaagccg 240
tactgaagac cgacacaggt actcgaggag aaaggagacc caattaagg tgagagaatg 300
gacgataagg aactaggcaa aaggatatgg tatctgcggt agaacatatg aaagaagcag 360
caccgactgt ttagcaaaaa cacagcactc tgcagaaaag agaaaatgta aagtatagag 420
tgtgcggcct gccaaatagt agagaagaaa tcgatgaaag tgaaag 466

<210> 4648

<211> 392

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-042-Q1-E1-H4

<400> 4648

ttcacgggtc gacgcacgcg tccgagagaa ggaagtagaa agaagagagt gtaaggcggc 60
gtcataatag aaatccgaaa ggagtagaag aaaagagaga gaagaaagaa aagaagagaa 120
aagccgtact gaagaccgac acaggtactc gaagagaaaag gaganccaaa ttaaggtgag 180
agaatggacg ataaggaact aggcaaaagg atatggtatc tgcggtagaa catatgaaag 240
aagcagcacc gactgttttag canaaacaca gcactctgca gaaaagagaa aatgtaaagt 300
atagagtgtg cggcctgcc aatagtagag aagaaatcga tgaaagtga agcgagtaaa 360
agatgaggta tagagaatgg cggtcctaac ag 392

<210> 4649

<211> 265

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H5

<400> 4649

caggtaaagg tctagaagtc cggggtcgac ccacacgtcc gaccacgcgt ccggaagag 60
gaccgaatca gggtaagagg tagaggagca agaagagaag agagaatgct gggtaggagta 120
gcgaaacaag agaagggaag taaaaggtaa gaaagaggaa aggtttacga gagaagggaag 180
tacaaagaag agagtgtgaa gcggcgtcat aatagaaatc cgaaaggagt ataagaaaag 240
agagagaaga ataaaagaaa atcac 265

<210> 4650

<211> 264

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H6

<400> 4650

tccaccacg cgtccggaag caggaccgaa tcagggtgaa aggtagagga gcaagaagag 60
aagagagaat gctgggtgga ctacggaac accagaacgg aactcaaagg taagacagag 120
gaaaggttta cgagagaagg aagtacaaag aacacagtgt aaggcggcgt cataatagaa 180
ctccgaaagg agtagaaca accacagaga ccaccacccg tcgacacaaa cggcggccgc 240

tctagacgat ccacgcctac gtac

264

<210> 4651

<211> 449

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H7

<400> 4651

attccccgggt cgacccacac gtccatgtta gtcttcagtg gtgagcggat atgtctctga 60
cagacatcct gtattgggtg gaccagtag tttggagcaa acgctttgac cttccactat 120
ctgttacttg cttctttata tatttcatag tatttcatat agcttgtgcc ttctttggta 180
ttgctgacta ttggaagctt ctgcgcaagt acaagctgca cgaaagtgac gagaagacct 240
acctgcagtt gctgccaaga gttgtgttca atcaactggc gttttacttg actagttgct 300
acataggaga gaaaatgggt tggatattca gaacccttc taaagacaat gctttccaac 360
tctggaagtt gcctatctat cttactttgt actctttcta tcatgaaatt atagtttact 420
ctgctcatcc ttggctgttg caatccaag 449

<210> 4652

<211> 363

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-042-Q1-E1-H8

<400> 4652

acccacgcgt ccgaacaact attatcatct tgtgatgctc gccccctcct ctttttttat 60
tagaacatca tggtaaaaac gaaatgatca aacacacaag gaataaaggc aacgtcgact 120
ttttggaata gggccatgtt atcgaaatcg caaaactaat aggcataacg tgtggagggtg 180
attttcaaaa ggtggataga cgtattgtat caattattgt aaaatcaggg aagatcttca 240
acggagcaag ttgtaaacgc gaaaagggtt cccaataaaa agtagatgac cctaattgtt 300
cgctgtaagg aaactttgtt taacattaat aaaagctctt aaagttattg gtcttgtcaa 360
aaa 363

<210> 4653
 <211> 425
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-043-Q1-E1-A10

<400> 4653

```

cgggtcgacc caagcgtcca ggcagcttca gttttgactc agattcaaag agaagccatg   60
gagaaggcag ggaaaacatg gaatccgatg gaggaaaaag cattcogtga ttcacttata   120
gaaaagtatg aaagggaagg ctctccttat tatgcgtccg ctagaatatg ggatgatggc   180
gtcattgctc cgcaagatac tcgaaaagta ttgggtcttg ccttgtcogt cgtaaccaat   240
ggacagaaag tatccaaaga acaagagcat ccgttttctt atggtatatt ccggatgtaa   300
tggttatcca gaatcatttc taagcatctc tataaagatt tattttatct tcttggtgta   360
aaaaaagtcn ttgcaaaagc aaaacgagca agaagaataa ctactacgaa aacattacgc   420
tggtgt                                     425
  
```

<210> 4654
 <211> 444
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-043-Q1-E1-A12

<400> 4654

```

ccgggtcgac ccaagcgtcc gagcacctgt attattatcg tttttgttgt tgttgtaaca   60
gcctgtgtct ctctaaagag tttcttgaaa tgcagagagt tggattggtt ggtgattcgg   120
tcaccaagct tcacttgta aggcgcagtt tctcgcaata tgcaagacct tgggaataatc   180
ctgaaggaat atatgccttt gttcgacgtg aaaaagattt gggctcctta cccggtagag   240
aatggactat tgatgagcta agattaaaat cctttgacga cttgcacaag ctttggtggg   300
tccttataaa ggaaagaaac gctttgttaa ctgaaagaga ctggtgtcgt acagcgaaac   360
gagaatggaa cggtgaaaaa gctttagaaa aggtatgaag gagagcaaac ctttgtctgt   420
cccgatatcg cacagcaaca acac                                     444
  
```

<210> 4655

<211> 356
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-043-Q1-E1-A4

<400> 4655

tccgggtcga cacacgcgtc caacaaacaa gaaatggtat ataatgatag atgatgatac 60
ttatgtcttt ttggataatc tcgccctaac tttgcaaag gatcatttcc gtcttttggc 120
ggaagaagaa cccttttact tgggcaatcc gttcacagt agtaattgtg acaaatatgg 180
agagttcttt gatgatcaag gaaaaccaa tccctccttt gtcctggcg gttctggaat 240
tgttctttcg aaagcggcac tggaaaagat agtcgatcat attccgtggt gtatagaacg 300
ttgggacggt tgtaaagaag gggatgctgc aattgggtccc tgtttgcttt cttttc 356

<210> 4656
<211> 382
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-043-Q1-E1-A8

<400> 4656

cccacgcgac cacgcgaaac aagagaaggg aagtaaaagg taagaaagag gaaaggttta 60
cgagagaagg aagtagaaag aagagagtgt aaggcggcgt cataatagaa atccgaaagg 120
agtagaagaa aagagagaga agaaagaaaa gaagagaaaa gccgtactga agaccgacac 180
aggtactcga ggagaaagga gacccaaatt aaggtgagag aatggacgat aaggaactag 240
gcagaaggat atggtatctg cggtagaaca tatgaaagaa gcagcaccga ctgttttagca 300
aaaacacagc actctgcaga aaagagaaaa tgtaaggtat agagtgtgcg gcctggcaaa 360
tagtagagaa gaaatcgatg aa 382

<210> 4657
<211> 436
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-043-Q1-E1-B10

<400> 4657

cgggtcgacc caagcgcca gttagacctt gcctgtggta gtggggaaac ttcccttcaa 60
 gttgtcacc tagtttccag ccaacttaaag gatgaagcca aagacgcaa gatagtttgc 120
 gttgatattt cggacgaaat gcttaaagtt ctcaaccaa gagcacagga aatggggcta 180
 gcaaatatgg tggaaacccg ctgtgaggac gccgagaagg tcgactttgg tgcgcactat 240
 tttgatatgg ttatgagtca gtttggagtt atgtttttgc cccatcttgt ggaagacttg 300
 gcgaggattc gcggtatgat gaaacgggt agtttatttt cttgtgttgt ttggggagag 360
 gaaaaggact gtcataattt ttacgcagct aggagcgta tcagtcctcc tctccacct 420
 ccaggaactc cagttt 436

<210> 4658
 <211> 331
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-043-Q1-E1-B4
 <400> 4658

acgcgtccac cagcgctccg cccacgcgtc cgaaaggaga gaaagaggaa agggatgaaa 60
 tgcagagatc tctagagaaa ggcaagaaag aaaagaaagg aagacacagt aaatgaggcg 120
 agaaagcata ggaagtgaaa cggattagga acccgtgtag tctatgcagt aaaagaaaga 180
 atgagtaaga aaaaaggagag tcattccacc aggggagtaa aggcgcata aagaaaccca 240
 gaccaattga cgggaatcgg aaaaaggggt ggatcactaa attaatccga tataaaccca 300
 gaaccttacc tctcaagag ggtgttgac g 331

<210> 4659
 <211> 302
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-043-Q1-E1-C12
 <400> 4659

cgggtcgacc caagcgccg agccacgcgt ccgaaaagga gggaatgaag ggaagttatg 60
 gcaaaaacac gtgccagcag cagcggtaaa acgtgtgtag caagcgtaga gcagaagaac 120
 tgggtgtaaa ggtcgagtag tagagtaagt gtaaaaggga aaggaaagga gagaaaggag 180

aaagggatga aatgcagaga tctctagaga aaggcaagaa agaaaagaaa ggaagacaca 240
 gtaaattgagg cgagaaagca taggaagtga aacggattag gaaccctgtgt agtctatgca 300
 gt 302

<210> 4660
 <211> 297
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-043-Q1-E1-C6

<400> 4660

cgaccacgc gaccacggac gcgtgggagg acgcgtgggc ggacgcgtgg gaagacaaca 60
 atgtctcgtc ccaagtgttt ctttgatatt gctatcgttg gacaacctgc aggaaggatt 120
 gtattcgagt tggtctccga tgtcgttcct aaaaccgcgg aaaatttccg tgccctgtgt 180
 accggtgaga aagggtttgg gtacaaagac tccaagtttc ataggatcat tctccagttc 240
 atgtgccaag gtggagactt tacacactgc gatggaaccg gtggcaatag tattttac 297

<210> 4661
 <211> 429
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-043-Q1-E1-D11

<400> 4661

gggcccagccc aagcgtccga ccacgcgtcc gccacgcgt ccgcccacgc gtccgtacga 60
 aaatgagcca aagcgactcg tttggtttgt tgcttttcgc gccagcagct gtatccaaaa 120
 aagcaacagt tatcaaagac ttgaaacaac aagattgtga gatagtgtat gaggaacaga 180
 ttagattgga cgtcgagcgt gcgaaaaagt ttcttgagtt gtattccaag cgagtggaag 240
 aagaagcaaa ccgaaaagaa gacacgatag ccacactaac ggaagactcc tgcttggcac 300
 ttgttgtaaa aaagaaacaa ctttcgacga ccttgaaaca actatttgaa cagaataatg 360
 tttctgcgga taaggaggga ggaggagaaa acacggagga gaatgttttc tcgacaaaat 420
 atggtttttc 429

<210> 4662

<211> 386
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-043-Q1-E1-D12

 <400> 4662

 cccaagcgtc caggaaaaat gttaagttgg ttgggtcgtt ggtgggacag tcatgtagta 60
 gaaatggctt tagacaatgt taaaaatgag cagatggaaa gaatccgcaa gacaattatt 120
 tcaagggtac cagacgttcc taccgtgggtt gaaattggag caggctcagg tctcaatttc 180
 ctgcactacc cttcttatgt gaaggatttg acagttatta ctttacaaga agaactcagc 240
 aaaagagctc gacaaaaggc acaacagaga ggtctgaatg tgcacatcat tcagggagat 300
 ggccgagtac ttcctttgaa agataactcg gttgatgtgg tcgtagcaac ccttctattg 360
 tgcacagtaa gcgatgtcgc ggggtt 386

<210> 4663
 <211> 155
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-043-Q1-E1-D8

 <400> 4663

 acccacgcga ccaccacgc gtccgaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60
 aaaaaaaaaag gcggaagcac ctgaggggtat aaaacttacg tacacgtgca agcaacttta 120
 ctggctcgtc gaaactgtca gccaacgtta ctttt 155

<210> 4664
 <211> 73
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-043-Q1-E1-E10

 <400> 4664

 aagaggttcc aggcttactt ccgctgcat gcaacttcat acctcttcgt atattgtcac 60
 ctaagtgtca ctt 73

<210> 4665

<211> 109
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-043-Q1-E1-E5
 <400> 4665
 ttacaaagcc tgtaaaatcc tcgtagtcct tacgatgagt ctacgtggta cacagatagt 60
 agaacacttc attttttaac caaaaagaaa gaagaggaga agggagggg 109

<210> 4666
 <211> 406
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-043-Q1-E1-E9
 <400> 4666
 cgggtcgacc caagcgtcca ggggtgaatgg caaaaacacc aaaacagtat taaaagagaa 60
 acttaaggtg caaacagatc tgacggaaaa tagtcagaaa aataagtctt caagctcaag 120
 agcttcttgg gaagagtctt tgcggagtgc gaatagaaga gacgaactgg aatgttcgac 180
 ttcgtagttt ggaaacgcag ctttatgcac tttttgtatt tgttttgta atgtcccttg 240
 ttgtcttgat tggatttttc tttgttcttc gagcagaatg aattcaaggc caccttttga 300
 atgatcgtat cgatcattta gaagagctgc taaaaagtca ggatggaaaa tgtcagagag 360
 atttgctcc agtagcagaa tgtgctaaag aaccttcgtc actcat 406

<210> 4667
 <211> 376
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-043-Q1-E1-F10
 <400> 4667
 tcgcccacgc gtccggtaga ttcgaaagca aatacgtcca ttggtgacct tgcacgtac 60
 aagtgcattg tgttggaata ttgctgcaat tctgttgact cgtttcactt gttcctat 120
 cattgtttcc ttacggcat tatcttttga agctagtttt aaagtgtatc gctctttaca 180
 cttgattggt aagtgcacat agtttacaag gttgtgagcg aatcacgaag agggagttgt 240

tctangacat gctatTTTTgt tggTCgctgt ggttGTTTTc tacagtggca tatttgataa 300
 actcgttgcg aaatatcatc ttggaaatgc ccacaaagcc agttcgttga acaataaaat 360
 ggattaactt gcgtgg 376

<210> 4668
 <211> 457
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-043-Q1-E1-F11
 <400> 4668

ccgggtcgac ccaagcgtcc aggcgaaacg taatcgTTTg aagcttgaga atgtggaaac 60
 cTTTTtgcaa aaagtggaaa acattcttaa ccagaagcaa gatgtcattc cttcactggT 120
 ccatggagat ctatggTcag gcaacattgg ttttcttaat acgggtgagc ctgtaatttt 180
 tgaccctgcc acctattatg gtgatcgTga agtagacata gctatgacag aattatttgg 240
 aagattgcct gaagagTTTT atattgctta caacgatgaa tttccgTtag cggaaggata 300
 tgagcaacga agaatcatat ataatcttta tcacgtctta aatcattaca atctatttgg 360
 aggaatgtat ggtcgtcaag cgaagagtat gatggaagaa ataatggagt ttatgtgata 420
 gtgcttatta gttttcaaaa gttgacattg tccaaat 457

<210> 4669
 <211> 361
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-043-Q1-E1-F3
 <400> 4669

ccacgcgtcc aatttagtca tgtcgtcttc aaatgagtct atcgagacgt tattgctaaa 60
 gacgtttcct aaagaaatcc ctacttcgta ttgtctcgtg tatgcacttt tggctattcc 120
 ggtactcgcg ctcgacgtgt atttatatct tgccgtactc cacttgaact ttattgcttc 180
 aagcgTTTTcg ttgatcatcg gtactacagt cggcttggtg cttctagtta cgtcgtatca 240
 taaaactgca tatgccaaagt ggtctaagct cgatcgcaaca acagagcaac caaccaagag 300
 ctctttcaag ggtaatttTgt cggcataccg aagtggagtt gagagtcacc tatggctcct 360

<210> 4670
 <211> 180
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-043-Q1-E1-F9

 <400> 4670

gacccaagcg tccaaccacg cgtcgcgctc tacaagcaat ttccatcttt ttccctcatt 60
 cattcttaca ttccagtaga tgtacaatat ttttttcatt gtcaaaaaat attgcacaat 120
 ccacccatcg aaccacgaaa aaaaaagcct ttcgaggctt tctttctaca cttttgcaaa 180

<210> 4671
 <211> 424
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-043-Q1-E1-H11

 <400> 4671

ccgggtcgac ccaagcgtcc gagcctatct gttgatagcc cttttttctc ttaattgttt 60
 tttctctagt tcagctgtcc ttgtgaagta ctttattgtt acccagggtc aatattccca 120
 aagctgcgag taaggaagag aagcccgctt caaaacgcgc tgtatcccc tacaacgaat 180
 atatgaagaa gatgcttccc gtcataaagc aacaaaaccc caatctttcg catcaggaag 240
 cttttaagcg ttgtgctgaa agttggaaaag acgtccaga gaatccaaag aaccaggctt 300
 cagcctaagt taggggtttt ctttgaattg gtgtttctca acaccaccag gagaaggaac 360
 tagtctatct tatatttcgc tttgtgtctt caagcacgga atatgaggag aggtagactt 420
 ttgt 424

<210> 4672
 <211> 342
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-043-Q1-E1-H5

 <400> 4672

cccacgcgac catttttttt tttttttttt taaacaaaag aatggagaca tatatctatt 60
ctgttctata gtgagaagca cattgaggac cactagaaag ctgcatacga aacaacaaca 120
acctacacaa ctaacgacac gagataactt gagacacaca aacacaagca tatccgtgca 180
cacacgccga gttgtgatta gccacacacg cacacacacc ctactatcgt gctgaaatca 240
aacctcttaa aacatgtccc tgaaatacac agagtttaat aaagcagacc ttttcgcgtt 300
ccaaaaaact aggttcaaag caattggtga aaaacgtgaa ta 342

<210> 4673
<211> 365
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-043-Q1-E1-H7
<400> 4673

accacgcga ccacggacgc gtgggggcaa cgatgaaagc tgcgtcagaa agcaaagctt 60
taaaggaat attggcatat accgaagata tggtagtctt tactgacttt gttcacaata 120
gtcattcttc gatatttgat gcgaatgctg gaattatggt gtcggaaact tttgtgaagc 180
tgattgcttg gtatgataat gagtggggct actccaatcg tgttgtagat ttggtgcacc 240
atatggcgaa agttgatggt gtagcttaac tctgcttttc ttgttgtttt ttcgtgtatt 300
gtttgttttg tgaaagagat gaaatgtggt gtctttttcca taaaaagttg tgtgcgctgt 360
gaaaa 365

<210> 4674
<211> 411
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-044-Q1-E1-A10
<400> 4674

attccaaagt cgaccgcgc gtccgagcat gcgaccgcc acgcgtccgc ggacgcgtgg 60
gatgaacaga ttcgatatct tcgataatga tgctgtgaga agtttgacag tctcgtacg 120
tgctgatata tcttcaggat ctagcgagtc tctttgtctc gtcgaatcca aatgaacttc 180
ttgacggctt cgcgacagaa ccgtccttgg acgtagattg tgcctctaaa tgttggtact 240

tcgcagaatg ctgtaagcaa cggaaatcgc caaagtgagt tgaatcaata gtttgcacct 300
 tcagttttcag tgtgatccag tacactcatg gcgctcttgg gaaacatggc actacagagt 360
 tcaaagaata gacatgttga tgacccgacg gtggtgacct gtgctgcctg a 411

<210> 4675
 <211> 370
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-044-Q1-E1-A12
 <400> 4675

acgtccagta tgaaaggaga aacgagtgtg gactgtctta gtcgtccaac tcagcgaaac 60
 agcaataact gtgaaaatgc agtaaaactag cagtaggacg gaaagacccc ataattcttg 120
 actagatagg tttagggagg agagagaatc atgaagtaga ggaggtgggg taagagatga 180
 aagaccactg catgaggata aggaatctaa ctgagtaagg aaaataagct taagctagtt 240
 tggctgggga agtaaagcct aagaaagagt aaattaggca agcaaaggca tgagagaagt 300
 ataatagcag aagcatgctt gaagaaaaag aaagagattt cagaaaggga agaaaagtca 360
 gctatagaga 370

<210> 4676
 <211> 410
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-044-Q1-E1-B9
 <400> 4676

gtcgaccgc gcgtccgacc acgcgaccgc gacaatgaga aattggaggt ttttttgtgt 60
 ccaaggacac actggatata cacttggagt gggaatggat aaggtctcaa aagacaacaa 120
 ctttgtcaaa gtaatactag atagtgacca caacttctct ccttgccggt tggatatgcg 180
 tagcaccgta gagaatggtt tgaaggaacc aggtatgctt ggaaagaata gctcgaagaa 240
 aaccctgttg gtggttgctt ttgctgtgaa tggagttgtg ccaacatgcg ccagttcggt 300
 gcttggtgga accaaatata tctttaagca gaacaacgag tcgcgtaagt acgctttgcc 360
 acgtcgaact tgtgcggctg tggtaaatacc atcggctctt aagtgttgtt 410

<210> 4677
 <211> 348
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-044-Q1-E1-C2

<400> 4677

gctcttcctt aaattctttg tgcttggaca atggttgcaa agactgctct gagttgcctc 60
 tttctctctt tccttatcgc tgccgcagtt gcagccgacg tagtttcaga agagagatgg 120
 ggatatgctc agcaaaccce acaacagcaa cagtgccaac aagtatgtaa acagtatgca 180
 tactatcaga gtccagtctg cacttccgta accacacaga gcccatactg gacccaatgc 240
 tcgaagactg tgcanaccct ttgtccaagc cagtgcatt atttatacca atctcctaca 300
 tggacctatt gcagcaccta caccaccact agcggtacat ctcaatgc 348

<210> 4678
 <211> 378
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-044-Q1-E1-C6

<400> 4678

cggacgcgtg ggtaaattcg ggtcgccct cctatgcagt atcagtgtgc agactgtgga 60
 aatgttaacg aaatacgttt ggggtgaacca gtccgctgca actcttgtgg cggtcgaatt 120
 ctgtacaagc ttcggacgaa gagagtagtt cagtacgaaa ctcggtgact gcgttgcttg 180
 atacagtcct agtactattc acaagccaga cgttacgcta ggaaagtctc tgttggttcg 240
 gtaaaactcc tcggatgatg tgtgcttatt tgtgttactg ttgcacgact ctaaactctaa 300
 acccattgat tttttagtg tttgttgtct caagttgtta ataaaaaact ttgcacatag 360
 ccaaagactt gttccaat 378

<210> 4679
 <211> 413
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-044-Q1-E1-C8

<400> 4679

tattattact gtcgtggttt ggatatttgc tatggttatt gtttgtggtg cctttgcagg 60
tttgaggagg aatagttggt ttccgaatag gaggcgtcgc gtttctcgcg aggcgcctgc 120
accagaacat ggagttgctt cggcaaacga taactatagt tcgcctcctt ttgtatttat 180
gtataatgtc tacctgccac gtcttgatac agtagcgctt gaaatagtgt acggaagcga 240
agaatccttt ctgaaacaag aacgacagtt gaaagaacgc tttgtgaagc gttacatgtc 300
tcagcgggta ttcaaacaag acgaaaaaga ggatagtttg tccctatatg tcgattctac 360
cacagtagcg gtggaagacg gcgccctcag tgggactgcc agtagagaga aga 413

<210> 4680

<211> 437

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-044-Q1-E1-C9

<400> 4680

attcctaggt cgacccgcgc gtccgacaaa atgaaacgga agaataatttc gtaaataag 60
cgacgacttt gtagtcattg tggagaagct tttgccaaca tttcgataag tagaaagaac 120
aagcacttgt gtcgttggtg tttctacaac tacttggaag acacagttca tcaaacaatt 180
gttgaagaga agctttttca accgggtgaa agaatagcaa taggagcctc tggaggaaaa 240
gattccactg tattggcata tgttctcaag ttgttgaacg agagatatga ataccactgg 300
gacttgtggt tgctatctgt agatgaagga atacacggct atcgagacga ctctttaaga 360
actgtggaac aaaatagaga tgattacaat cttcctttat acgttgtatc ctatagtga 420
ttgtatgatt ggactat 437

<210> 4681

<211> 394

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-044-Q1-E1-E11

<400> 4681

cacaagtgaa atttgacaaa aggtcgggaat ttactccgc tgggtatctg aaagtagttg 60
catgtgatta tgtaaggcca atcagcccaa agtcaagtta attttgaagc ccaatctttg 120
gattacaagt agagatcctt gtaactgtcg aaggtcagtt acctgtcacg tggatagata 180
gatatttata gagatgtaag catgttgctg tgaaacagtt ttgcaacgac tagtaatagc 240
tatccataaa cgacttgagt gtatgtatcg tccaaacact tgcaacaacc tggctcgggt 300
ttactgaaaa aataatcgag ctggcggtt ttgaattgct catcaagtca tgagggcggc 360
tgctctagaa gatcttgact aaagtcagcg atga 394

<210> 4682
<211> 439
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-044-Q1-E1-E12

<400> 4682

attcctaggt cgaccacccc gtccgataac tcggacaaca cagagcttac ggcgagtttt 60
cctgtgccaa gcctggagaa acctgctaag aaaaagttaa attcgtcagg aagctacctt 120
gtgattggag gttgtttggc aaacgccgt gtattgtttg ggggtttgat aagttttcgc 180
cgtgggaact ctgcgaactc tcaaagtgtt atgcgtgctc gtgttctgac acaacgtgca 240
accttgggtt cggtagcagg tactttctgg agtgcagcaa atatgaaaag ganggagagg 300
gaacaggcag aagcagccgg cgaagagttg ggagtagaaa ctttgatga agacaaggcg 360
atggtctctc tagaaaagac cggtcgacag aaaagtatga cgtagactgt atagtgttcg 420
aattgtgaaa atggtttta 439

<210> 4683
<211> 163
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-044-Q1-E1-H10

<400> 4683

gtccgacgaa aaaaaagaga aaaaggtaag aaagaggacc gaatcacggt aagaggtaga 60
ggagcaagaa gagaagagag aatgctgggt ggagtagcga aacaagagaa gggaagtaaa 120

aggtaaagaaa gaggaaggt ttacgagaga aggaagtaga aaa

163

<210> 4684
<211> 287
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-044-Q1-E1-H12

<400> 4684

atttgaagat gactagatgt catttttggc accttttgtg taacagagtt ttctcgtgtg 60
tttgtttacc tggaacgcgc tgttgattga gtgttttcag tcaaatttcg tagtaaacga 120
aatcattcga tggtttggtta gactgactgt cgtgaggatt gtttttagctc atgccacaag 180
gctttcacat gcgccttata aactatgcat aaattgacaa attttgcaaa ggtagacaca 240
gttttcaagt gaaagatcat ggtttgcgag aatttagaat acttgtg 287

<210> 4685
<211> 406
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-045-Q1-E1-A4

<400> 4685

cccggctgga ccacgcgctc agcacacgca tccggatata acgagcttaa ccattattgg 60
ggctttttgt tgcaaggctg ctgcatacga aaagactagg attagtttat acacatgaca 120
tcatactttg tatcattttg ttcctgggta aattttttat ctcccaatgg gttgtatgct 180
gggaaaatgg ttgttttgca tatgtaacct tacttgaaaa cgaaccatat atccactcct 240
cgtactacac tgtatgttaa gcagactggg gataaacttg gtgaaacttt tcacttgtat 300
gttgtgcatg gacacctcac agtcaattaa gctctgaacc tgggtggagct attttgagca 360
aatagccgat agttgagaga gagtctcgcg cccctcattga gaaatg 406

<210> 4686
<211> 419
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-045-Q1-E1-B1

<400> 4686

cccggtcga cccacacgtc acggggaaga agaggtggca gtggtgctgc tagaagaact 60
ccgctaaggt caaacctcc cctttttgca aaaagagaaa gggaagaagc aacaacgaaa 120
cagtcttcac gtcctgctc ttcgctggcc aacgtgaaga ataatcctac gagtggaac 180
caaagagaga agaccaacca aacgacgacc cctccaactc agaagcctag tatgacctct 240
tctctttttg ggggaatgct angaagtatg ctcccatgt ttttatttat gaactggttc 300
aggaggaatc ccgaggaaag ggaaccagac aaagatgaga tagctcagaa gaagtgtcag 360
aggcttgctg gcaatattca agattgtttg gaaaaaacg actatcagca aagtatgtg 419

<210> 4687

<211> 320

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-045-Q1-E1-B10

<400> 4687

gaccacgcg tcagtgactg ctccaggaat ttccattggt ttttatggag gttttgttac 60
tattgcttgg ttctatgcca tgtttatgat gcctgaaacc aaagataaga ctttgaaga 120
gattgatgct ttgttttcca tgtcgatgcc tgatttagcg aaacataatt gggataatgt 180
gaagaagaca gtggatgatc tcttgcattt taggttgaga gaagtttgga aggtttacaa 240
gtgagcgatg attgttattg tttgattttt tgagtacttt atttgtttgg taacaataaa 300
agcataaatg cgtgcataac 320

<210> 4688

<211> 403

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-045-Q1-E1-B8

<400> 4688

aattcccggc tcgaccacg cgtacgtata ttctttgtgc ttggacaatg gttgcaaaga 60
ctgctctgag ttgcctcttt ctctctgtcc ttatcgctgc cgcagttgca gccgacgtag 120

tttcagagga gagatgggga tatgctcagc agaccaaca acagcaacag tgccaacaag 180
tatgtaaaca gtatgcatac tatcagagtc cagtctgcac ttccgtaacc acacagagcc 240
catactggac ccaatgctcg aagactgtgc aaacctttgt cncaagccag tgcagtactt 300
atacccaatc tcctagatgg acctattgca gcacctacac aaccattagc gtaccatctc 360
aatgcagcaa ggccgtgact acctatattc aaacctgctg tgc 403

<210> 4689
<211> 318
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-045-Q1-E1-C12

<400> 4689

gacccacgcy tcaggtgatt gttgccatgg ttttgtttga catgatttcg aatctgatag 60
aaaacgctcg agcaccaaca gagcaagagg tggagcagga agcaaatgac aggatttatc 120
gacgctaattg aacaacatga cctgggtgca tatatgtgga gttcacctgt gaaaccacca 180
tactgggtgga agtcggatgc ctttcaagaa cattataagc aattgtgtca cagacataag 240
cagcgctca agacccctgc agagcgaacg ccagaagata tgggagaaat gtacagatcg 300
aataaccttt gttaccgc 318

<210> 4690
<211> 237
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-045-Q1-E1-C2

<400> 4690

ccacgcgtca gccaacgcgt ccggaaagag gcaaatacgg gaaagcagta aaagaagaaa 60
gagaaaggaa aaaactgagt atcaggaaga aaagaaggag tanatgagga aagaagata 120
aggaagtaag agtaagagaa ggagtaatgt gaatgaaagc aggaaagtat ttgaagaaaa 180
aagtgtaaac cgcgtacctt ttgcataatg tcccagcgag tgaaagagga accaaaa 237

<210> 4691

<211> 419
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-045-Q1-E1-D1

 <400> 4691

 aattcccggc tgcaccacg cgtaaggagc gagaggcaag gtgttatcat ggcaaacgca 60
 gtgagaattg gtgctgaagg ttacagggtta aagttggacg gtgcagttca agagatagac 120
 ggtcgttctg tagttctggt agatgtggat agtattaccc ctctcatggt tggaggtagt 180
 atgaaagaaa aggccaaatt gttggatgcc aagtttcgaa ggaagtatta tgaggagAAC 240
 aaggacttct tcttcttgtc gactagagaa gataagaaaa tgtttgtgac gttgcaactt 300
 gccagggAat atgcagagct ggtagatgac caattcttga agggcttctt cgagaatgct 360
 ctggagtcCG ctCagaagac gtattaattt gtcaagtagt gtgtatgtat gcgtttgaa 419

 <210> 4692
 <211> 112
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-045-Q1-E1-D5

 <400> 4692

 acccAcgcgt cagaacacat gcaagtaggt aaagcgaacg ggtgagtaaa gaggtgtgaa 60
 agagtggAag aacatgaaag cacagaagaa tgtaagaaat ggtagagta aa 112

 <210> 4693
 <211> 52
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-045-Q1-E1-F10

 <400> 4693

 acgcgtcagg gaatatacgg gaaagcagta tgagatgaaa gacaaacgac aa 52

 <210> 4694
 <211> 230
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-045-Q1-E1-F5

 <400> 4694

 tccccggccga cccacgcgctc agagaaatcc gaaaggagta aaaaaaaga aaaagaagaa 60
 agaaaaaaag agaaaagccg tactgaagac cgacacaagt actcgangag aaaggagacc 120
 canattaagg tgagagaatg gacgataagg aactaagcaa aaggatatgg tatctgcngt 180
 agaacatatg aaagaaacag caacgactgt ttttaacaaaa cacagcactc 230

 <210> 4695
 <211> 253
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-045-Q1-E1-G11

 <400> 4695

 acccacgcgt cagcgaacgc gtgggcgac tcttgggttg gaaaaagatt tggaaaaaat 60
 ggaataaggg ttgaaaggca attcaaacct attgaaacct ggaactcctc gaaagctata 120
 taagtagcgt atgcaggaaa gaagaaggta aaggaagaga aggaagaagc acatagggac 180
 tatgagcgat aaggtggata gtcgagacgg aaaaagccca gaagccaaga taatgtatca 240
 aagtaaagaa tga 253

 <210> 4696
 <211> 274
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-045-Q1-E1-H11

 <400> 4696

 gacccacgcg tcagcggacg cgtgggcgga cccttgggtt aacgttacct aatggattgg 60
 tggatggggc aaactcgtgg ttgggcttcc ttttgggaaa caaaaaaag tcgtctctgg 120
 aaaaatggca agtagagtac cttggaataa ctttcgtatg ctttgggtgg tgggtggcgg 180
 ggtggtccta gtggtcctgc ggttcgagtt gcaggtttgg ctattgcagg tatcgctaca 240
 gctgccattg gttataaata tgggtttatac aacg 274

<210> 4697
 <211> 378
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-045-Q1-E1-H5

 <400> 4697

 agccccacgcg tccggtaaag tatagagtgt gcggcctgcc aaatagtaga gaagaaatcg 60
 atgaaagtga aagcgagtaa aagatgaggt atagagaatg gcggctctaa cggttaaggat 120
 ccaaaggtag cgaagtaa atagcgtttga aaggcgtcca gtatgaaagg agaaacgagt 180
 gtagcactgt ctagtctgcc aactcagcga aacagcaata actgtgaaaa tgcagtaaac 240
 tagcagtagg acggaaagac cccataattc ttgactagat aggttttaggg aggagagaga 300
 atcatgaagt agaggaggtg gggtaagaga tgaaagacca ctgcatgagg ataaggaatc 360
 taactgagta aggaaaat 378

<210> 4698
 <211> 108
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-045-Q1-E1-H7

 <400> 4698

 agccccacgcg tccggaaaag tttttgaata aagcagcaat gccgctctat catcgtaaaa 60
 aaaaaaaaaa aaattaaaat aaaaaaaaaa aaaaattaaa aataataa 108

<210> 4699
 <211> 364
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-046-Q1-E1-A10

 <400> 4699

 aattcccggc tcgaccacg acgtcagga tttgttgtct cattcgagcg acgaatcaac 60
 ttgtagtgca gcaagacaag aaggaaatat ttcgtcgggt agattatcgc caactgcagt 120
 tgactctact tgttgttgta acaactggca acttgcctca gtgtctgaac ctatcgctac 180
 gggtgaaaat attatatgcy atgatgaagc caagtcgatt ttacgagttt tggagcaact 240

ttctggcagc accactatgg aaggaagaac agataactct tttgaattgt cgagtacttt 300
ggaagagaaa gttgtagaag atgaaaacaa gcaagccgat ggtgctccgt ctcccagtgt 360
tgtg 364

<210> 4700
<211> 195
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-046-Q1-E1-A11
<400> 4700

gacccacacg tcaattcttg actagataag tttagggagg agagagaatc atgaagtaga 60
ggaggtgggg taagagatga aagaccactg catgaggata aggaatctaa ctgagtaagg 120
aaaataagct taagctagtt tggctgggga agtaaagcct aagaaagagt aaattaggca 180
agcaaaggca tgaga 195

<210> 4701
<211> 453
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-046-Q1-E1-A6
<400> 4701

aggtaccagg tcaggaattc ccgggccgac ccacgcgtca acggacgcgt gggtttatat 60
gttgctcaggc agaagcgaaa tggatgcttc cacagcagta tggaaaaata atcaacactg 120
cctccatgtc agcacatatt gtgaatcatc ctcaaaaaca ggccgcctat aatgcagcca 180
aagcaggtgt agtacaactt accagaactt tgggagcaga atgggctgat cgaggagtgc 240
atgtcaattg catttcgcct gggttatatta atactcctat tacgaatact cctgccttga 300
aaccggtcat ggactattgg attcgactaa ctccagccaa tcggttgggt gaagttgaag 360
acttgcaagg tccagtagtg tttttagcaa gtgatgcttc tagttttatg tttgggtggag 420
aaattattcc tgacggaggc tttactcttt ggt 453

<210> 4702
<211> 205

<212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-B1

<400> 4702

aggtacaggt caggaattcc cgggccgacg tacaaatcaa agtcaacctg gcttgccctcc 60
 tgatgaaaac gggaagggaa ggaacgtttc caaaaacctt tgcgctcaac aagctcctcg 120
 ggccaagaca tgttacgaag tttttccgcc tcttttccaa ccgggaaaac cttaatcccc 180
 aatggaccgg aacctgaaac ctttt 205

<210> 4703
 <211> 365
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-B10

<400> 4703

cgacccacac gtcagcaagt atttgccata gaagaagaga aaaacaaggg ctggttgttt 60
 ttatctagtg ctatttgat acaaaccga ggaagaattg gaatatggag atattgtggg 120
 aactggtata gctagagtat cggtgtgata gcgtgttgta tcccgactcg aacaacttta 180
 catggcaata aaagcagttg ttcaaggaaa aaaaaaaaaa aaaaaataa aaaaaaaaaa 240
 aaggcggacg caccaaaaga atcaaacttt cgtagcatg catgctacgt catagactct 300
 tcaattctgt cacccaagtt caatttaatg gacgtccttt tacaacattt ttactgggaa 360
 aacc 365

<210> 4704
 <211> 352
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-B11

<400> 4704

cccggtcga ccacacgtc agtgccaaag tgcagcaaca agtagatgaa gttacttccg 60
 ttatgaggtc caatatagac gaagcactaa atagagggga gcgactcgat gtgcttggtg 120
 acaaagcgga agatttacga ggcggtgccg gtcaatttca aaaatcttca acgcaactta 180

aacgaaactt ttgtaaacga aatatgaagg tcatcatttg cattgtaata gttgtttcttc 240
 ttattgccct tgctatcatc cttggagtag tgtaaacgca acgaaatagc agtagtagtg 300
 gaagccgtag tgggtggaac actagtggca acacaacgag aattttatac ta 352

<210> 4705
 <211> 440
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-B6
 <400> 4705

attccccggc cgaccacgc gtccaccac gcgtccgga gtgggaatag tatttggaag 60
 tttggtgaat gcatatgcaa ggaaccagc attgaagcag cagttatttg gatacacgat 120
 attaggggtt gcgttaacag aggcagtagg actgtttgca ttgatgatga gttttttgat 180
 actgttttca tagtatagga gaaacaagaa gtagaagaga aataaaagag acagaagagg 240
 agttatgaga gaaaagatgg aagtaataga agtggttaagt ggagtaataa tgaatcatat 300
 gaaagaacga atggagaata taaggaagga ttacatgaag gaggagataa tacgagaaat 360
 gataaggtgg atatatatat cgataataag tgtgatagta atatacagga cgagaaagag 420
 acgaaagacg tgtatgatgc 440

<210> 4706
 <211> 443
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-B7
 <400> 4706

ggtacaggtc aggaattccc gggccgaccc acgcgtcaga gcaagcgtga accgtgaggg 60
 tagttcatca tggttgagac aaaacttcaa gatggtgtta gtgcttctct ttggactgtt 120
 cgtctcttcc tctacacagt tatttttagca ttctctgcc ctatcatttg cttgaatgga 180
 cgtaaagcag acaacatatg gaacgacagc ttattctatg atgggaagta cattaacttt 240
 tgtgcttatt ctgectcttc tgtttagtaa ggaggggacc atggagcgtg taaatatgtc 300
 atggcggttg cgtctataag tttgattcta gtctttttct tgtggctttt tacatttgta 360

gatgcgttgt atcctattct taccaagttt tggtttattg aattgggtat caacgtgttt 420
 caaacaatgt ggtggttggg tgg 443

<210> 4707
 <211> 422
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-C2
 <400> 4707

ccgggccgac ccacgcgtcc acggacatgt ccttttcata cccaccgtca gacgacgaca 60
 ataaccagca taacttggct acaactagta gcgtgtttga tactggtaat gacccatttt 120
 ctactagcga gggaagcgag tcacctactt tgggcattgg acacttggac agaattaaac 180
 ctttgaacac tgcacctgcg ttgggtgtct aagcgcttgg ttaatggaac tctccagaat 240
 atttgtttgc ggaagactat accgacgac gtataaaagtc ttggggagaa cagctcatgt 300
 attggacagg actttcttat ctgactggtg cagtgcactg tggttcgtat ggacacgtag 360
 aacgacttcg gtcacacgt ggcacaagtt gggaactacg aattaatgct atattgaatg 420
 ca 442

<210> 4708
 <211> 348
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-C6
 <400> 4708

agaacaaact acaaaagaaa caacgaagat ggaaacaaaa aggaaaatat catagaagac 60
 gtgggaagaa atgagctgca caatatttaa ttcttgctta tgtacaaact tcatattaca 120
 tgattactag aaatgtttcc ttgaataaat tcttacgggt aatccccaaaa aaaaaaaaaa 180
 gaaaaaaaaa gaaaaaaaaa gaaaaaaaaa taaataaaaa gaaaaaaaaa aaaaaaaaaa 240
 aacaaacaaa aaaaaaaaaa aaaaggggcg gccgccc aaa aggttccaag cttacgtacc 300
 cttgaatgca acgtcaaagt cttcaaaaag tgtcacctaa tttcaatt 348

<210> 4709
 <211> 353
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-046-Q1-E1-C7

<400> 4709

 aattccccggg ccgacccacg acgtcagggt gctttatatt gatcctttca ctgaagaaga 60
 cttcacttta cgtcaatgtc tttctgtttt tttccctatt ttgcagttt cttttctcga 120
 caacgttttg gttatagaga agtggttctt tagtgtcatc aacactatatt tggatgcacc 180
 tccttccaag tcgcttagtg aagcttctgt cgttcaagtt gcagagtatc ttctctactt 240
 gacaaacgct tctatttcct atcatagaaa taaagagtcc agcgatgttt atgaacaggt 300
 ggttcagtgt catgagagaa tttgttgccg tcttcntcat gctattatag acg 353

<210> 4710
 <211> 377
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-046-Q1-E1-C9

 <400> 4710

tccccggctcg *acccacacgt cagggcacaa aaggatagac aagaaacaga attggataaa 60
 gcctcggaga cttgtccttg tgttaagggt tgtggctact atggaacatc gtcgaccttg 120
 aatattgtgt ctaaattgta cagagaacac caacgtcaag agcaacaagg acaaattggaa 180
 tcggttggtc cacaacacca gtttcaagaa gagtcgttag acaaagcaga agaccgtttg 240
 caaaatacta cggaccttaa acatgtagat ctccaacaag atacgtgtgt ctcagaagct 300
 ataacggggc agtcggagtt gcaattggaa gataccgctg gggcttcctt tgaagcaaat 360
 agcaagactt cctttttc 377

<210> 4711
 <211> 441
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-046-Q1-E1-D1

<400> 4711

ccgggcccgc ccacgcgtca aggaatacaa tcccgtaaaa tttccccaag aagggttcg 60

gaaccaattc tggttggtcca aacataggca ggtacccaat ttccaattgt ccttcattct 120

cagaaatact tcaagcgtca actagactat ctgcgttgct ttctagaata tggaaaaagt 180

tcttctcagc agtatttagca tccacanaac tagactccat atcaatccag tctgattccg 240

tcttgcttct atctatatca ctgtccaagt tgctctgttg ttgttggtgt ggtgtaacag 300

acacgctacg cctatcgggt aaagcaactg taacgctctt taaaggcctc ttgaacgttg 360

ggtctcccgga gatttgctgc aaagtaagag ataaactaag aactgcattc gtacgacttt 420

cttgagcaa aaaattttta c 441

<210> 4712

<211> 267

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-D10

<400> 4712

aatgcccggc tcgaccaca agtcagagta tttggaatgc ctgaaaacca agtgtttatt 60

ttaagaggag gattggagga ttggaagaaa catggctatc ctattgccag tagccacgat 120

gataatagtt ggatgccatc cgagaccaac aagacttttg ttgcacgata tcaaccacag 180

tttggtgccg attagttgct aataaaagag tatgtccagt ctccaagaga ttgtgtaata 240

ttggatgctc gttcctctgg tcgtttt 267

<210> 4713

<211> 408

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-D12

<400> 4713

aattcccggc tcgaccaca agtcagcgcg tctggccgaa tgaaaactgc ggtccttggg 60

aagaacttta tggcattcac ttttttgatc aatatctgca gaggactgct cttcttcgag 120

gtaagtttga ttttcagtga tagataatag cagccgagga ataatcattt ttaggtgtaa 180

aacttgctga aaaacttgggt tataacaata ttgccaaaca ttatcaaagg gcagcggaaa 240
acattactca agtattgccca tectatattg caaaggactt tggcatcggt tgggaatctg 300
tcaacactac tcacgacacc aatcatgaaa ccttttttga tacatcgact atcttgggaa 360
ttcttcatgg atacaatcac gaagaagtat ttgcccccaa caatgaat 408

<210> 4714
<211> 442
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-D3

<400> 4714

cgggccgacc cacgcgtcca gtcaacgtcg atttttcctt cgacttgggg gccaatcttc 60
atcttcttct tagaatgaaa ttgagtatcg cgaatcccg c tactggttgt cacaagcata 120
tataagtgga cgacgattga aaacttcatg cgttttttga caagagactg gtgcaagaag 180
tcacaggaga cgctctaaga tacgacttta acggatatat tttcaagatc atgggtggac 240
aagataagga aggattcgct atgagacaga gactcttgac cactggtcgt gtaagactct 300
tattaccgaa aggagactct ggttgccctag ggtactgtat gagagactgt gaaagaagac 360
gaaagatcgt tcgcggttgc attgtatctc catatatagc tgtgttgaac ctcatcattt 420
tgatgaaatg caattacgat at 442

<210> 4715
<211> 439
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-D5

<400> 4715

aattcccggg ccgaccacg cgtcagggtt tatggaaacg ctcttcaa at tgtaaagtat 60
ttggaacaaa atccatcgtc atgactagta caggaaggaa tattgcgaag aaaatacaac 120
ctcgagaaca aatggacggt gaaggagctc gtgtttttcg ttcgattggt actgcttccc 180
ttcgaaacct tgacccttct ctcattgttg atgagttccg tgtccaagca ccagcagggt 240
ttcctgacca tccacatoga gggtttgaga ctgtcactta tatgttggag gggtatttta 300

cgcacgacga taatcacgga cactcgggag ttatacggcc aggtgatgtt caatggatga 360
 ctgcaggtag aggaataatt cacagcgaaa tgcctcatgg gaaacaagaa ggtcatgggt 420
 tacagctttg ggtcaattt 439

<210> 4716
 <211> 443
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-D9
 <400> 4716

aatgcccggc tcgaccacac cgtcagcacg gtttggttgc attccatgtc aaatcgctcc 60
 cgcttgccctt caggtttgag aagtgtgcaa ctcgttccag agcaggaaga tgcgacaact 120
 ttgcaactag gagaagactt ttcgagtga aaagcccagc cacttactat tagtgaagtt 180
 tttattcttt tgtctcgaaa gagagatatg atgcgagagt tggaaggccc gagagcagat 240
 gaattttcaa gtgtctttaa gaaatttttg gaatatgtag agcgctttga ccgttacaag 300
 ggtcttgaag ctgcaaccaa cgtccgaaac ctgttgcaac gatatgataa tttggatccc 360
 tttgaaatgg cttgtttggc taatctttgc cctgcagatg tatgaattat gttagtctcg 420
 agggtttaaa ctgaagttgt tgt 443

<210> 4717
 <211> 427
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-E11
 <400> 4717

aattcccggg ctcgaccac gacgtcagcc cacgcgtccg atgaaattga aacaaaaaat 60
 actgcgctta agaagaaata tgttttcttg tattatagct atgaatttgt ctggtgatga 120
 aaaggaacca gagatttcca atgttcgcct attttttctc cgtttattag tcggactttt 180
 gtcaagcagt acacgagtcg accaagattt aaaagaagct tttgaaaaag aattcggagg 240
 ggacaccaac ttttccttaa atcgctatgt gtgctggcga ctaggttacc aactggactt 300
 gttggggaat tcacctagaa aacaattatt atatggctct atggccatgt tattcggttt 360

tacttgcgca agtaatctca ctctgatttt cggagcgctc tcctttctgg accctatgaa 420
tgctgga 427

<210> 4718
<211> 326
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-E12

<400> 4718

aatgcccggc tcgaccacaca cgtccgattt gttgattatc gcaccatttt gtggaaagga 60
tgagtaactc ggacaacgca gagcttaggc caagttttcc tgtgccaagc ttggagaatc 120
ctgctaagaa aaagttaaata tcgtcaggaa gctaccttgt gattggaggt tgtttggcaa 180
ccgccgctgt attgtttggt ggtttgataa gttttcgccg tgggaactct cgcaactctc 240
aaatgtttat gcgtgctcgt gttctgacac aagggtgcaac cttggatgcg gtagcatgta 300
ctttctggag tgcaacaaat atgaaa 326

<210> 4719
<211> 415
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-E5

<400> 4719

aacccacgcg tccgcccacg cgtccgcgga cacgtgggcg gacgcgtggg ttttgtggtt 60
ttcttgtcct cgacgcggat tggaggcctt ttcttccttg cgtcatcatg gtatccaaaa 120
gtagggacgt acctctgaga ctaaaagaaa aggcggcaag gaaagaagca cagttgaaga 180
ccatgtctga taagccatcg agagccaaag atgaattggt acccgacgga agacataccg 240
aaagtagaat ttttacggaa aaaatcgag aagcgtacca agttgcgggc atccatcacg 300
cctgggacag tcttgatcct catgtctggc cgcttccgat gaaggagggt tatctttctg 360
aaacagctca caggtagact aatattggtg acacgacctt ttgacttgaa tggcg 415

<210> 4720
<211> 448

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-E6
 <400> 4720
 tacagggtcag gaattcccgg gccgaccac gcgtcagcaa caattgggtg tgttggttgg 60
 gctttttgtt ttgggggtttg tttgggtgaa gatggcgcac tatcaacatt accgagctag 120
 tacagcgggt atagcttttg gagaagcact ttctgaactc aaggaacaga acctctttac 180
 ggaagcggaa gaagatgtga tttggaggaa gtttgaccgt gccatgacag aagcccttgc 240
 gtccaacgtt gtggatacac accttacgtt gaaagggagt cttcatcact atcgattctg 300
 tgataatgtg tggcaattct tegtgaaga cgcacaagtg aaatttgaca aaagttcgga 360
 ttttactccc gctggttatc tgaaagtagt tgcttgtgat tatgtaaagc caaccaaccc 420
 aaagtctagt taattttgaa gcccaatc 448

<210> 4721
 <211> 196
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-E7
 <400> 4721
 ggtactagtc aggaattccc gggccgaccc acgcgtccac ccacgcgtcc gcggacgcgt 60
 gggtttgatt ttctcttttg gagccgattt cgccgtcggt gccaaaggatt gaaatactga 120
 agaagtcctt ttcgtaccaa aattgcattg tattttgaac ctttggataa taaaagccag 180
 gaacaattgg aacttc 196

<210> 4722
 <211> 462
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-F1
 <400> 4722
 ccgggcccgc ccacgcgtcc acatgaacat ttgttcatta gagattaaca cgcaagcaaa 60
 tgaaaggata tcaactttcc aaatcccttt aacatataga agccaaaggg agaagcctcc 120

.cttgggtcaaa cctttaaggt acaagccaat tcacaaaggc atctttctgc agaagaagaa 180
 tggctattac ttaatcaatt agactggata aagtcgtggg gtttccgggt ctctgtggat 240
 atggagaaaa tgcctggaaa tagagtttgc ttagtacaag tgccatttca tgataaagca 300
 acgtttggag tggacgacgt attggaaatg atccatcagt tacgaacagg agaagcagtg 360
 aaccaacagc atattcgttt tcctagattg gaagcagcgt ttgcttctca agcttgctgc 420
 atgtctgtaa tgataggaac tccattagac cgctcgaca tg 462

<210> 4723
 <211> 431
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-F10

<400> 4723
 aattcccggc tgcaccaca cgtacggata aagagtaa atgtgttgca cgggtaccgt 60
 agcaaccgct tgttcgtctg gccagctggc cgtgtcattg tctctagcgt aagttagctc 120
 cgtctaacia gactaccaag ccaccttga gtcgtcctga gtttgtatcg attggtaact 180
 caaatttact ttaaaaaatg tgacgcaagg acggttaggc tttcatcttt tcgttttttc 240
 gtctttgggt tttcctgcta taacgcgggt ctcaagaaac ttagagtga tccgaaccaa 300
 acgagcgatg ttttctgtg acagatccat taggaagttg aaatggacag acgtcctttg 360
 gtccttccaa tgccaacaa tttgcaaaag agatccgctc atgcatagg acaaaacaac 420
 tagtcactga g 431

<210> 4724
 <211> 302
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-F12

<400> 4724
 cggctcgacc cacacgtcag cccacgcgtc cgaagaggtg tatgatgcag gcaaagaagt 60
 gacacactag atcagagagt aacacatgca agtatgtaaa gcgaacgggt gagtaaagag 120
 gtgtgaaata gtgggagaac atgaaagcac agaagaatgt cagaaatggt tagagtaaaa 180

accatataag aagtttaagc gggaatctga gacgaggaaa gccacattgg gactgagaaa 240
 aggtccaaac aagagaagtc agcagtggggg aaaattgggc aatgtacatg gaagtatgac 300
 cc 302

<210> 4725
 <211> 444
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-046-Q1-E1-F4
 <400> 4725

gggccgaccc acgcgtcagg ccatactgaa gaccgacaca tggtctcgag gagaaaggag 60
 actcaaatta aggtgagaga atggacgata acgaactaag caaaaggata tggtatctgc 120
 ggtagaacat atgaaagaag cagcaccgac tgtttagcaa aaacacagca ctctgcagaa 180
 aagagaacat gtaaagtata gagtgtgcgg cctgccaaat agtagagaag aaatcgatga 240
 aagtgaaagc gagtaaaaga tgaggtatag agaatggcgg tctaacgggt aaggatccaa 300
 aggtagcgaa gtaaatagac gtttgaaagg cgtccagtat gaaaggagaa acgagtgtag 360
 cactgtctag tcgtccaact cagcgaaaca gcaataactg tgataatgca gtaaactagc 420
 actangacgg aaagacccca taat 444

<210> 4726
 <211> 316
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-046-Q1-E1-F6
 <400> 4726

ttccccgggcc gaccacgcg tcagctcaat tggaacaatt ttgtgaaatt attcgacctc 60
 atctaccatc tttgaaatcg acgccatatg ggaagcgtat ttatagtaag atagttaggc 120
 gatttccgga aagcagtagt tgacgatgaa atatatatat atatatatat atgatcgacg 180
 atatcgagaa tgtgtaggaa attgtattga ttagaaaatg ctttgaatat tcaatttttt 240
 ttgttttgct gtaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300

aaaaaaaaa agaaaa

316

<210> 4727
<211> 411
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-F8

<400> 4727

gaattcccgg gccgaccac acgtcagggt ttgggtgtgt gtccaccaa aggggtgaaga 60
tgcaaatatt cgtcaagaca cttactggca agaccattac tttggaagtt gagccttccg 120
acactattga aaacgtaaag tccacaatac aagacaagga gggaattcct cccgatcaac 180
agcgtttgat atttgcaggc aagcaattgg aagatggaag aactctatcg gactataata 240
tacaaaagga atctaccttg cacttggtgt tgagacttcg tggaggagct attccagaag 300
gagatcctac tcgcggggag aagatattca agacaaagtg tgcgcagtgt catacttatg 360
aaagtggcgg tattaacaaa caaggcccca acttgcacgg tctatttggg a 411

<210> 4728
<211> 411
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-F9

<400> 4728

aattcccggc tcgaccacg acgtcagact ttttatttag gtgtcaccaa cttgcaacga 60
gactgggaaa tagaacaagt gtccagtcaa tctgtgcaaa cactcttgtg ccaaatacag 120
aggggtctgga tgagtcacta tcttctcaga atgttttgaa gcatctttcc ttgggagaga 180
atgtcgtctc gagttttgtg tgtagaaaga gcgtttcaac tcagaacaac tcaccctcga 240
ggtagtgacg ccacaaagga cgataagctt gtcatatgta gactagcttt ttgggaagaa 300
ttcgacaagt ttgtttcaaa atgtccttcc gtgaattttt gttcagctcg atgtggaaga 360
gacaagagag aacactttat ttcaaagcag agctagtact actgctgctg a 411

<210> 4729
<211> 436
<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-046-Q1-E1-G2

<400> 4729

ccgggccgac ccacgcgtca acaaacatgt ccttcgctat tcctgctgtt gtttctaccg 60
gagcaggggt atcttttgggt gtacctgctt caattgcaaa cgcttggtct gacctggatc 120
aattatgtag tggcaaggat agagcgctcc tgagtttgcc ccaagttttc aaaagttcca 180
aagacaaggg caatcttctc gctcgtcaag gacaagggtc tattgaagcc ccaggtaaag 240
ctgacagaat tgcaagacaa agagcaggac gtatccgtag tgtcgaagat gacgtcgtac 300
cagaggaacc caactttcta gcaaagggtc ccaaacggga gcgagatggg agagcagctt 360
ttcgtccttc aaagaagtca aaccggttct cncctcgagc cactttagaa gatgtccttc 420
tcaaaattcc gaacag 436

<210> 4730

<211> 444

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-G5

<400> 4730

aattccccgg ccgaccacg cgtccacca cgcgtccgag aaacagcaat aactgtgaaa 60
atgcagtaaa ctagcagtag gacggaaaga ccccataatt cttgactaga taggttttagg 120
gaggagagag aatcatgaag tagaggaggt ggggtaagag atgaaagacc actgcatgag 180
gataaggaat ctaactgagt aaggaaaata agcttaagct agtttggttg gggaaagtaa 240
gcctaagaaa gagtaaatta ggcaagcaaa ggcatgagag aagtataata gcagaagcat 300
gcttgaagaa aaagaaagag atttcagaaa gggaagaaaa gtcagctata gagaacaggt 360
gaaggagAAC tcaaaaagag gagagcaccg aacgatcgaa gaagaaactt tgggggtaac 420
aggttaatgt ggtgttagag aacg 444

<210> 4731

<211> 446

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-G6

<400> 4731

cccgggccga cccacgcgtc agagggccgt ctctgtggg ttgcctcttt gtgtgtcttg 60
caaagaaccg cacaaactct atgagtcata caccgactt ttactgggca caacgcaaag 120
acaaactggt tcttaccatc gacgttccca acgtggacaa aaaccaagtt tctattgagc 180
tcacagacga cggtaaactt agttttaaag gtcgaggtgg agagttgcac gaaaaagcgg 240
actatgaact ccacttggaa ctgttacatc ccacaaaggc agaggagtcc aagtattctg 300
tgacagctag aaatatacgg ttgtttattg tgaaaaagga atcggggtcg tattgggaaa 360
ggttgttgaa acaaccgggg aagaacatct actgcaaagt ggactgggaa cactggaagg 420
acgaagactc cgaagatgaa ttcgac 446

<210> 4732

<211> 432

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-G8

<400> 4732

ccgggcccga ccacgcgtca ggaaaagggg agaagatggc aggtatttgg gccaaagtaca 60
acgcagcact taccgcaaac cctttgaagg tgaaaacctt aacatccttt ttgtgtttta 120
ctctaggaga ttgatagacc cagtcccccg acatgttgtc agggaagcct tgggattata 180
tgagaactgc ccggttttca gcttttgggt tgtgcataca cgggtccgatc gggcactatt 240
ggtatcagtt tttagatagg acggttatga ccaacgcgcc caagtccggg atcgcagttg 300
ccactaagac agcaatagat cagcttcttt gggcgccaat atttacttcc atatttttct 360
cctttatgaa aactgtggac ggccaccctg atcaggtagt acatgaagtg aagacaaagt 420
tgtggccaaa ca 432

<210> 4733

<211> 253

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-H6

<400> 4733

tcccggggccg acccaagcgt cagcccacgc gtccgcccac gcgtccgccc acgcgtccgc 60
ccacgcgtcc gccacgcgt cgcggcacgc gtccggagcg agaagggtgga tagtcgagag 120
ggaaaaagcc cagaagccaa gataaggtat caaagtaaag aaagaaggaa aaggagaaga 180
agagagggta cgcttagaag cagcaaacca gagaggaaag cgttaaagca tgaaagaaaa 240
gaaatccgaa aaa 253

<210> 4734

<211> 442

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-H7

<400> 4734

attcccggggc cgaccacgc gtcaaccac gcgtccgccc acgcgtccgc ccacgcgtcc 60
gccacgcgt ccggaatta ttagaacgac agaaagaagg caaagaaaaa ttaagacaat 120
tgggaaaagt tcgtctgtca ccggaagctt ttgcagcagt agttgctcag aaattttaag 180
acaagaaact ttattcttat aagaatcttt ttgatatttt cagggatgta tagcagcaat 240
gtccttatta ctagacctga ggataggtcg aagaggccgt ggatacattg gtcgtgttca 300
acttggtttg actttgtgga ctcaacgata gtcttacgtg tatccctgcc tttgaatatt 360
tataaactat taggagtaaa agcatcagag aaccaatcaa ggataaccaa gcaaattgcta 420
ctgatactgg agtattgaca ct 442

<210> 4735

<211> 357

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-046-Q1-E1-H8

<400> 4735

tcccggggccg acccagcgt caggggtggaa aggcacgaac gggctcttgtt tcaaaccgcc 60
accatatgga gaattataag aagacagaag ttttgggaga aggtacttat ggaaagggtgt 120
ataaagctca agatattaga acaaacgaaa ttgttgact gaaaaagacc cttttggtaa 180

acgaagacga aggcgtcccc gcaactactc tgagagaagt gtctatctta agagcacttt 240
cagattgtcc ctacatcgta aaactatctg acgtttctca cactgcatcc agaaatggta 300
aacctgtggt gtacttggtt tttgaatact tggaacacga tctcaagcac tatatga 357

<210> 4736
<211> 357
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-046-Q1-E1-H9
<400> 4736

aatgcccggg tcgaccacaca cgtcagccca cgcgtccgcc cacgcgtccg cgccaaaagc 60
tggaagtgag cgcttcgctg atcctgattg cgagcactaa ctgtttgtag cttttttacc 120
gtcatgtgga actggtgagg ctatgtgggg ctcagaattg caaattatgg aagaagaagg 180
tgatgaagac ggctactcga cacctacttc gcaaacaata agagtctatc cagataggcc 240
acccccacct cctagaaaga agaggtataa gaagtcccg aggatgggca agaacttgga 300
gattggagat agtgagttgc agtgtaagac tctccttgat tcggacttgt ctgtttc 357

<210> 4737
<211> 412
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-047-Q1-E1-A4
<400> 4737

gacncacgcg tcagccaaca cgatcggacc actcgtccaa cacacagcat aactggcaat 60
ggcactgtgc acaatcagac tgtagacaat actgttgaag aatattgatc atgtaatgaa 120
agtcattcta tcattgacac ggaatttgac catcctttta gaccattacc gaggatagag 180
ggacattacg atggcctgct gccaaagtac gaggttctc gaatagacct gactaatgt 240
cgtgcgaaca ctctgtagtc atccgtctca agttttgatc aaataggttt atccaacgtg 300
ttgttgaca gactagtctc tacgacctat ccctagccta gtatgtcata tgtaacttca 360
ctgtcacgca ctggtccaca cgcattcaat atcttaatca gtcaagcata ga 412

<210> 4738
 <211> 402
 <212> DNA
 <213> *Cyanidium caldarium*

 <223> Clone ID: LIB190-047-Q1-E1-B11

 <400> 4738

 acccacgcgt cagcccacgc gtcggtacaa atttgggtcat gttccttgtc gttggtagac 60
 ttgcaacatt ctatgcaaag aaacaacttt cggcatgcgt ttcagttatt cctaaagtaa 120
 agtactgtgg agaatgtaga ccttgctgta aaaagtttag ttacaacctg gtgaaacgtt 180
 ccattcgttt ctatggttgt tccagtggac cgtcctgttc ggaaaccaca gggtcgtctg 240
 ctacgaaatc ttttgaagta aatcagagtg aaccaatatt tattaccga gtcaaggaac 300
 ttgctgaaga atctgccctt gagttgagct taactattca aagcgttcgt tggaccggtg 360
 ggaaactagt agtacatatt ggtcacgccc acgcagagag ga 402

<210> 4739
 <211> 422
 <212> DNA
 <213> *Cyanidium caldarium*

 <223> unsure at all n locations
 <223> Clone ID: LIB190-047-Q1-E1-B4

 <400> 4739

 cccggggcga cccacgcgtc agcggacgcg tgggaggacg cgtggggaaa cctatgcaac 60
 tgccgtaagg gcaaccttac atgggtgtctc ggcagcattt ggcaaagctg gtgctgccat 120
 tggaacacaa gtattcaatc cactgaagaa gataagtcca gtgaatggac cacgtgctgt 180
 gttcattttc tgtggtggtc tctcctttat tggagctatc ttgacttata tttgcatccc 240
 tgataacaag aagaagccat tggaggttct cgatatggag tttgaaaggt attgtctgga 300
 gcacggcgtg gaattgaagt acttgcaacc atcccattat tcaaagtact ttacttcgag 360
 tgactctgat gagaaagctc gcatgaatga gaatgaaaca gaagataagg gtantgttgc 420
 cg 422

<210> 4740
 <211> 421

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-047-Q1-E1-C10
 <400> 4740
 cccggcccga cccacgcgtc agcaaaaacc ctgggggtgga acaaagagca ccgaaagaca 60
 cccaagcgat gaccgtacaa gtcaccgaca ctttggaataa gaaagccact ttatatcaac 120
 aactttgtga agctggagtg gatgaggatt ccgagtatat ggtagatttt gaacgcaagt 180
 atttggataa tgaagaacaa ccaccaactc aagtatcgga ttggatgggtt gaggggaaag 240
 tggcagattc gaaacaaagt gacgaaaacc catcatcgga tgcatttctt tgtcatatat 300
 taccatttc ggatatggaa acctatagaa agttgggtgc ggaagagtg aatcgtctcg 360
 tagatacaac cttgtggtgg aagaaacatg gttttctatt tggcgggtatt cctaaagaac 420
 a 421

<210> 4741
 <211> 339
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-047-Q1-E1-C7
 <400> 4741
 gaccacacg taagggtccaa caatctgtag cccagctcc tgcaccttcc tgtgtcagtg 60
 ttccagtcaa gtgctgtatt gagggtcat cttgctacca gcaagtatct caacaagttc 120
 ctcaacaagt tcctcaacaa gtgtctcaac aagcacctca aacacaacaa gtctcatctc 180
 agtctgttta ttaagtgaag ttgtagggtc aagggtgcca acaattcaga ataaacttgt 240
 gttttggcta acaaaaaagg aatcaatcaa aaaaaattca aaataaaaag cactggggaa 300
 aaagaataaa ttggtgtttt gagcaataaa atgaaagca 339

<210> 4742
 <211> 301
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-047-Q1-E1-D5
 <400> 4742

ggtacaggta acgaattccc gggctcgacc cagcgtaag cccacgcgtc cgcatatta 60
 gtctcgactt ttctggagct ccagagtgga gagtgtcaag gagctgaaca aaattatcac 120
 aggctttctt gtgcataact atgatcgctt cgtttttcaa acgagcgata gtgactggca 180
 agtccgtgaa gttcgtatct tcattgctct gcagcgaaaa agaattgctt gagttctact 240
 ttgtatgtat caacaactct ttgatttggg tgatgacaaa agctctcccc tcggaatggg 300
 t 301

<210> 4743
 <211> 197
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-D7

<400> 4743
 cgaccacac gtaagccac gcgtccgctg acgcgtggga aaaaaaaca aaaaaaata 60
 aaataaaaa aatcaaaaa aagaaaataa acaaagaaa gaaataggg cggcctccca 120
 aaaggatcca accttacata catgtgcatg cgacttcata actcttctat attctcacct 180
 aaattcaatt gactagt 197

<210> 4744
 <211> 408
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-D8

<400> 4744
 aattcccggc tcgaccacg cgtacgtctg tcttcaagtt tatgtacgca aactatgaca 60
 accaaggaaa ttgcatacct tgaaaagaga tgcaagatc ttggatttt ttctggagag 120
 tcctaaactg gactcagtga aagctgccac tggtcagcag aggcttgtga acaacaact 180
 ctggccgtct acagaaattt tggactgtat ttgcagttat tcaacaagca acagactacg 240
 agtttgtcgt tcttgtggca cgaaaaagct tcacgttaca atcacgtatt catcgtgagc 300
 acagaaacta actaacgcag ttgagaatgt cttatTTTTG ggctacagta gaagccggct 360
 tcggaccgag cttcgaagag caagactgtg attacaatca aaggaaca 408

<210> 4745
 <211> 413
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-047-Q1-E1-E4

 <400> 4745

acgcgtcagg gataatttgg gtattcaagc gtcgtcaacc tgtgaactgg tattccaaga 60
 tgcaaaagtt tcaaaagaag atgtgttang agaaattggc accggttata aaattgccat 120
 agaatccctg aacgaaggta gaattggaat angagctcaa atgattggac ttgccaagg 180
 tgcaatggat attatatttc catatctaca tgagaggaaa cagtttggct cccgtatcgg 240
 tgattttcaa ggagtccagt ttcagtatgc acaagctcga gttgaattag aagcagcgcg 300
 agcgcttggt tacaacgctg ctcgtatgaa tgatgcaggt atatctattc cgaaagaagc 360
 agcctttcgc aaatactaca gtgcccaagt tgccgaaaga attgcttcca aat 413

<210> 4746
 <211> 356
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-047-Q1-E1-E7

 <400> 4746

aattcccgtc tcgaccacaca cgtcaggaaa gcgaaagagc tgcacaactt cagcgtaaga 60
 aggagaagca acaagctgaa gaagcacaaa tcaacgagga tccttcggtt gttcttcagg 120
 gattacaacc aactcagcaa actccgatgc ttggatatgg aggaagacct tttggaaatg 180
 gaccttctgg atatccacaa actggccttt taagtttgcc tcctgcacca ggtacctttc 240
 agtgaacggt gttagtattc atcctgttgt tggaaagacg atgggaaaag gtttttggtg 300
 aataaactag ttgttttggt tgtgaaaaaa agaaagaatg aaaggaagtt atggca 356

<210> 4747
 <211> 404
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-E9

<400> 4747

acccacgcgt cagcccacgc gtccggatac aaacaagtta tcaagagttg caaaaagtac 60
aaaaaggtac gtggacatgg tgatgatgct gatggttggt atgtgggtaa tttcttagaa 120
ataggaaaac tgttcaacaa caaacaata ttaactgcc agttgagaga aaacgaacta 180
gtgaaaacgg aagttgattt gttggacgag tcatcgacga tatacaagtt ggtgggtcct 240
gtgatggtaa cccaagtaag tatgcatcca tcgataacta caaagacttg tgagtgtgtg 300
agtgtgttta ggattatgca gaagtgaaaa atacggtggc cagtcgcacg gattaccta 360
aaacagagct ggaaaaagtg gataggaaat tggaaagttt ggaa 404

<210> 4748

<211> 423

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-F10

<400> 4748

gaccacgcgt tcaggtttct tcaatgggtc cgggttggtt cccgttcctt gggtgattgt 60
accggaaatc tatccctggt acgttcgttc gcaatgtctc acgttgaact cgtttgcatg 120
ctacatgctg aatttcgtcg tttctttttc gtggccaacg atgctcaagt cgatgcatgc 180
acaaggcgcg tatagttttt ttgcaggctt tacgttggtt tccacttgct ttatctattt 240
gtttgttcct gaaaccaaag gcgtggaaat ggaagccatt caagaattgt ttcaatatcc 300
attgtatact attgcaaaga agaattgtgag tgaaaccaa gcgtatatga gcaaggtttc 360
ttggtttcgt cgatgggttg gaggtaatgg cggtgagcaa gagaagacat ttgaaaaaga 420
cag 423

<210> 4749

<211> 434

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-F11

<400> 4749

cccgggccga cccacgcgtc agcccacgct tccgctttga aaggaggtag tattcttggg 60
 agttcgaaag aagttcctcg agcggaatct atagtagatg ccatatcgga taatgggttc 120
 aatcaagttt atattattgg agggggctct atcgacggaa cgctgaaagc ttcgcaacaa 180
 atattcgaag agataaaaag aaggaagatg aaatgcagtt tagcagtaat accaaaaacg 240
 atagataatg acataatgcg aattcagcga tcctttgggt tcgagacttc cattgaagca 300
 gcagcacagt ccttacgtag tatacattgt gaggcttcat gttcttacca tgctgtggca 360
 gtgatacaag tacctggaag aaatagcggc ttttttgcag tggagacagc tttggcttct 420
 cgtttagtcg atgc 434

<210> 4750
 <211> 201
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-047-Q1-E1-F12
 <400> 4750

ccaacgcgtc cggaaatttg cgccccccga agttttgagg tgtaattgga aattttggta 60
 tttaaccgca atagtagtaa acgaattttg gaaaatgggt cgaataaaca ctgtcaactt 120
 gttgtaacaa gatgaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180
 aaaaaaaaaa aaaaaaaaaa a 201

<210> 4751
 <211> 396
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-047-Q1-E1-F8
 <400> 4751

aattcccggc tcgaccacg cgtacgcgga cgcgtgggtt tactttgtac ttgattcttg 60
 taaaacatgt ctgacgatat tgttgccttg gttattgaca atggctcggg tatggtgaaa 120
 gcaggagttg caggggacga tgctcctcgt tccgtcttcc cttccatcgt aggtcgacca 180
 agacaccaag ctattatggt tggatatggga caaaaggaaa gttatgtggg tgatgaggct 240
 cagtctcgaa ggggtatact ctctttaaaa tacccaatag aacacggtat tgtcactaat 300

tgggatgata tggaaaagat atggcaccat actttctaca atgaacttcg aattgcacct 360
gaagagcatc cagtcctggt gaccgaagct cctctc 396

<210> 4752
<211> 422
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-G12

<400> 4752

cccacgcgtc aggggtcaatt gtgtatcaag aagccttggc caggtatctt ccgaacgata 60
ttgcataatc atgaaagata tgagaaggct tatctttgcc agtttcccg gtattatgta 120
tccggtgatg gatgtcgtag agatgccgac ggtctttatt ttgtaactgg acgttttagat 180
gatgtgatca atgtaagtgg acatcgcatt ggaacagcag aagtagagtc tgcgttgatt 240
ggaaatcggt cggcggcaga agcagcgggt gttcctattc ctcacgaatt gaaagggtcaa 300
ggaattgttg catttgatgat tctgaaacaa ggaatcccg caactgctga actggaagaa 360
gaaatgaaaa agacagttcg agtaaatatc ggacctattg cagttcctga acgagtatat 420
tt 422

<210> 4753
<211> 321
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-G5

<400> 4753

cccggtcga cccacacgtc agcaacgaca aagccgtaga agctgcagat aggtagtgtt 60
tgctttcttat ccactcgtac tgcagttttt gacacttggc tagtcgtaaa ttcgggcctc 120
tgctgtttga ccttattcac ggaagagttc tttattctat tcggtcacct accaacttta 180
ctcgtattgt aaatagtaag aatgcgatgc gtcgtgatca tattattctt gccgtagagc 240
agtctttgtt aggagagttg tgacgtgcag ttggatgcaa tggtttgtct tttttaaata 300
aagtatgtat ttgttccaaa a 321

<210> 4754

<211> 429
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-047-Q1-E1-G6

 <400> 4754

 aattcccggc tgcaccaag cgtacggaga cgtttaaaaa aaaaaaaaaa aaaaaaaaaa 60
 aaaaaaaaaa aaaaaagaaa gaaaaacaaa aagaagggcg gccgatctac acgttcaagc 120
 catatctaag ctctgtatata atgtcatata tcttcaattc agtcaccgac gttcaattca 180
 ctggccatcg ttaaacaact tccttactgg aaaataacctg ccttgaccca aattaaccgc 240
 cctgcagcag atctcccttt caccaggtgg ggtactatcg aacatgccaa cacttatcca 300
 ccttcacaac agtttcgcac cctcaatgtc gaatgggatt caccctgtag cgtctcatta 360
 atccccgcag ctttactggg taacctcaga gtgacctata cacttgccat tccctatcg 420
 tccgttccct 429

<210> 4755
 <211> 312
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-047-Q1-E1-G8

 <400> 4755

 aattcccggc tgcaccacg cgtacgagtt tctaagaatt ggtgcctttg tgtttggtgt 60
 agctgcaggt tttggaagtg cttcagcgga ccatcgtaaa agagaaaaaa ttttaatttc 120
 taaaattcac gagcgcaatg ccaaaattga ggcgttgga agtgaactaa agcaactgaa 180
 aggggaaatt ccagcttcta caggtgatcc agttcaagat tggttgaatc aattggaata 240
 agatgtatat gttacaagta ccttgtggaa gagagagata gtcatttgaa taaaattagt 300
 tcttttccca ac 312

<210> 4756
 <211> 436
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-047-Q1-E1-G9

<400> 4756

ccggtcaaga aatcccgggc cgacccacgc gtcaggactt tgtgagactg tggagatgat 60

gacaaacatt ttacagacga aaatttcaga gaacaaaaat atgaaaacac aattggaaga 120

gaaggatgct atgttataca acttacagat ggagacgaaa atgaaggatg ttcacaaaga 180

acagaataac aaggacgcca gtaacagttt cttggctatt catggtgact caccogtttt 240

gaacagactt cgcaagaaaa tagcggataa tcaagaaact tcgggcttcc agaagaagaa 300

ctgggtgtaa aggtcgagta gtagagtaag tgtaaaaggg aaaggaaagg agagaaagag 360

gaaagggatg aaatgcagag atctctagag aaaggcaaga aagaaaagaa aggaagacac 420

agtaaagatg gcgaga 436

<210> 4757

<211> 380

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-047-Q1-E1-H1

<400> 4757

cccacgcgtc agcccacgcg tccgattggg caatgtacag ggaagtatga cccagtaatg 60

aggagtggag taaacagaaa aggaagtaaa aggagggaat gaagggaagt tatggcaaaa 120

acacgtgccg gcagcagcgg taaaacgtgt gtagcaagcg tagagcagaa gaactgggtg 180

taaaggtcga gtagtagagt aagtgtaaaa gggaaaaggaa aggagagaaa gaggaaaggg 240

atgaaatgca gagatctcta gagaaaggca agaaagaaaa gaaaggaaga cacagtaaat 300

gaggcgagaa agcatangaa gtgaaacgga ttaagaaccc gtgtagtcta tgcagtaaaa 360

gaaagaatga gtaacaaaaa 380

<210> 4758

<211> 407

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-047-Q1-E1-H11

<400> 4758

gaccacgcgt cagcaatctc tttcccatgc acaacagttg cgactcgagt tgaacgagtt 60

ttgtcgagga atatcttttc ttttccatga aaagatggaa aatgcgattt cctatgatcc 120
 attaggaaca tctctttctt ctctcgcacc tcatgccacc accacattaa tgctatatcc 180
 tcagcaagtc aatgggtctat atcaacaatc cgtatcattg tgtgagacca tcgacgacaa 240
 agaacccgag tcgcaatgcc gtacatttca aacgagtctg gtggcaaaca atttttttgg 300
 caacatcata ttgtccactt gtctcatcgg ggcaacctct ggcaattcgt ttggaagcaa 360
 cttgaatatc ccaccttata acagtaccaa gggaatagat ggctatc 407

<210> 4759
 <211> 424
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-047-Q1-E1-H6
 <400> 4759

tcccggctcg acccaagcgt acggaaacgc tgaggattgt tgtgggtgac ttgtggtagc 60
 agcagagctc ttgggtcaaat cctatccttt aggtttcgtt caaacatatg tcgatgaatt 120
 gctttgtgaa tagcagattt gtgagccttt acaaagtttc tcaactttggc tgtcacaaga 180
 gctttattca agtctttcct cgtagtgttc gtctactgcg ccatcaacaa ccggttcagc 240
 tgttttgctg tcaaaaagggt ttccaaagcg tatccagtca gtactttttc aatagaagag 300
 aactgttcaa agctttattg gttgcttctg ttgcgccctt tgtgtctggt tttcctgcaa 360
 aagcaagcca caactttaag cttactggac agtatgaaca agacgtccgt aatatgatag 420
 aaag 424

<210> 4760
 <211> 417
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-047-Q1-E1-H9
 <400> 4760

agggtaggggt aagagatgaa agaccactgc atgaggataa ggaatctaac tgagtaagga 60
 tccaaaggta gcgaagtaaa tagacgtttg aaaggcgtcc agtatgaaag gagaaacgag 120
 tgtagcactg tctagtcgtc caactcagcg aaacagcaat aactgtgaaa atgcagtaaa 180

ctagcagtag gacggaaaga ccccataatt cttgactaga taggtttagg gaggagagag 240
aatcataata gaaatccgaa aggagtagaa gaaaagagag agaagaaaga aaagaagaga 300
aaagccgtac tgaagaccga cacaggtact cgaggagaaa ggagacccaa attaacgtga 360
gagaatggac gataaggaac tacgcaaaat gatatggtat ctgcggtaga acatatg 417

<210> 4761
<211> 454
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-A4

<400> 4761

attcacgggt cgacgcacgc gtccaatttt catcgagtat tatattccat gccgattgga 60
gactccattt atgatgagcc tggatcacat ttggtagaaa atattatgaa agaagccaaa 120
gaaagaaatg taaagataca ttttccagta gattttgtag tagccgatcg catggctccc 180
gatgcacata cagagatacg taccagagaa caaggtattc ctgagcatat gcaaggactg 240
gatttgtggac cacaaagtat tcaacaattt attcaagtag tgcaacattg taatacaata 300
gtgtggaatg gacctttggg tgtgtttgaa atggatatat ttgctcaagg aactcgtcaa 360
gtaatggaag cacttgccaa tgccaataat attagtacta ttggagggtgg agatacagca 420
actgctgctg ccaagtttgg actgggagaa aaga 454

<210> 4762
<211> 430
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-A5

<400> 4762

gggtcgactc acgcgtccat ggctcattct ttgttttggt gtgtccaagt gagtgtgggg 60
tttggcattg gacactatat ggcaagaagc gacgacgaat acgactattt gttcaaaatt 120
gttcttattg gagattccgg ggtcggcaag tcaaaccttc tctcgcggtt tactcgcaac 180
gagtttaacc tcgagtccaa gtccacgatt ggggtagaat ttgcgacgaa aagtgtccaa 240
accgaagggg agacaataaa agcacaataa tgggacactg ctggtcaaga acggtaccgt 300

gctatcacct ctgcgtatta tcgagggtgcc gttggagcac ttctcgtata cgatatctcg 360
aagaaggaat cctttattgg tgtagaaaaa tggctaaaag agcttcgtga tcacgcggat 420
agtaatatag 430

<210> 4763
<211> 237
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-048-Q1-E1-A6
<400> 4763

ccgggtcgac tcacacgtcc gaagaagatt cctccaacat gtgcaatgag tgtccctggt 60
gcacgcgaga ctgcattcac catgggtgac aacgagtcca aaacaaacaa gtcagagtca 120
tattccacct aaatttaciaa tgtccttagg caaatgcatt cggcataccg ccatgatcca 180
ccaacgcgat tagcatccag aacaccctgg agacctacac atttgcacgt actgcca 237

<210> 4764
<211> 384
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-048-Q1-E1-A8
<400> 4764

ccgggtcgac ccacgacgtc cgaccatgag tcgggggttta gattggcgag ttcaagatcc 60
taatccacat tcctagttaa agtttctgag agatgtcgta gaggaaacctt ttgcccacg 120
tcattttgaa aacggttcta aaatagttac acaacaggag attcatcatt gcactttact 180
tgttgaaatt tgcttgacc attgttcgat acattatgaa cagctacgtt ttacgcgttt 240
aactagaatg ctatcttgca atcggtgtgc gcattgtggt ctataccatc atctttgtcg 300
atatagagat atggatggat tccttcataa gttgaatcat caattggaca tcattacaga 360
tgacttgcca gaatgtatga acaa 384

<210> 4765
<211> 411
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-B11

<400> 4765

ggtcgacgga cgcgtccgac cacgagtcgg cgacgcgtg ggcgatgatt cgatgcggca 60
caagacagtt gtggtggcaa ctgcgcgctc gttatcatac aactactact gtccatagag 120
tagcagcaga cgaagaaaag gaatctgtcg gtataaagcc taaacgtttg catcagcctc 180
ttggagttta tccacaagga accaatctgg aagaagtgg agaaaagtgg caaagtgacg 240
ctatggaact tatctcgaaa gtacctccga tagtagtoga tggctatgtc atagcgtgta 300
atggaggccg cgggtccatta ggacatccaa tagaatatat tcgtttggaa gcaccttate 360
cttcaacttg caaatattgt ggtttgcgat atatcaacaa agacactttt g 411

<210> 4766

<211> 426

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-048-Q1-E1-B12

<400> 4766

acgcacgcgt ccggtcttca gtggtgagcg gatatgtctc tgacagacat cctgtattgg 60
gtggaccag tagtttgag caaacgcttt gacctccac tatctgttac ttgcttcttt 120
atatatttca tagtatttca tatagcttgt gccttctttg gtattgctga ctattggaag 180
cttctgcgca agtacaagct gcacgaaagt gacgagaaga cctacctgca gttgctgcca 240
agagttgtgt tcaatcaact ggcgttttac ttgactagtt gctacatagg agagaaaatg 300
ggttggatat tcagaacccc ttctaaagac aatgctttcc aactctggaa gttgcctatc 360
tatcttactt tgtactcttt ctatcatgan attatatattt actctgctca tcgttggtg 420
ttgcac 426

<210> 4767

<211> 346

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-048-Q1-E1-B2

<400> 4767

gtcaagaatt tacgggtcga cgcacgcgtc caatcagcaa ttggaagaaa ctatcaactt 60
taaaaaaacgt aaacttacaa aacctgcagg aataacaaaa caaacaagtt tacatgtatg 120
ggtgcaaata gagaacaagt tggcagaccg taaagagctg ttaccagtcg ctcagttctt 180
atgtcaacgg gactgctctc tgtcaccctt tatcgcagaa tacggattac ctcagtttga 240
aagacagtcc gttttccga gtcttatgaa ggccatcggt tcgcagcaat tgagtgggaa 300
ggcagcgaaa gctatcatgc anagactaca agtgctgctg caagat 346

<210> 4768

<211> 304

<212> DNA

<213> *Cyanidium caldarium*

<223> Clone ID: LIB190-048-Q1-E1-B5

<400> 4768

cccgggtcga cccacacgtc caatcaaccg ccagtattga caaccctatc acagtacagc 60
tcatcctgag gaatctcagt gcctgactga tttcggcgta cggcaatggt actgttgact 120
tgtctcggta cagtaccttg aaagatagtt ctgcactgaa ccttcgctac aggaacgtta 180
agttagcctg tttcatggat acatgtctta gttttacgac acttatcctt tgtcaatact 240
ggtaatcatg tattctgtag gcgctcggac ttgaatgaaa tcgaaacatt ggagtcgtgc 300
tttt 304

<210> 4769

<211> 267

<212> DNA

<213> *Cyanidium caldarium*

<223> Clone ID: LIB190-048-Q1-E1-B6

<400> 4769

cccacacgtc caaacaagcg ccagtattga catccctgtg acggtacgta taattccggc 60
gcgtctcagt gcctgtctgg attcggcttt cggcaatggt actggtaact tgtcggggta 120
ctgtaccttg aaggacagat ttgcactgat ccttcgcgac aggaacgtta agctggcgtg 180
tttcatggat gacatgtttt tagttttatg acacttatcc ctagttactt cagtcgaacg 240

tgtattctgt aggcgctcgg acttgct

267

<210> 4770

<211> 432

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-B8

<400> 4770

accacacgt ccaatggaat ttggtttcct ttggacatt tagaacgcgc ctttcgtacc 60

gattggccga tacaaggcca tccctatact tatggatata ctagtttgag atatgcaagt 120

caatgttcca gtggaacttt tcgtcaacag ttgcaaggc ataagttggg agggctacat 180

atatccaatt attgcttccc tccctttggt atcttaaagg aactaacagg aacggaatat 240

ggaaacgaaa ctcttcaaaa tatgacaaag gaacagtgtc aacaacttgt ccacgactgc 300

caaggccact cttttggaag aactgttcct ttagaccaag tcccagaaga agacttggat 360

gcagtgtata ttccttggtt tgtcaagtgt aaccctaaaa gatatccatc gttgatgcat 420

caagtggatc tt 432

<210> 4771

<211> 382

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-C10

<400> 4771

gtgtttgggc ggtggaaaac agagacagac gatggaggaa gaagatacga gttggagcac 60

aatttatagg caatgtatag atacattgtt ttctcgttgg acggcacttg gtttggtctc 120

ggaccattgg aataggccag cagaggagtg togacaactg gtagacgcgc ttcaacaagc 180

catcctacaa gcagctcaag acaaccaact ttgtacagat ttcttgaga ctttatttga 240

agaaactttt gatattcttc aagtggatat agaggatgga agcatagaag aggttgcttc 300

tttgctatgt actatgtttc aagactgtct ccaacgcaac acggaatcgt tgaccaggtc 360

tccgaagcct agatcgacaa ta 382

<210> 4772
 <211> 446
 <212> DNA
 <213> *Cyanidium caldarium*
 <223> unsure at all n locations
 <223> Clone ID: LIB190-048-Q1-E1-C2

<400> 4772
 gtcaagaatt cacgggtcga cgcacgcgtc cgaccacgcg tccgcccacg cgtccgcaaa 60
 cctcaagtgg atcatccac gttggtaaag atagacttgt ctcaaggcag ctttaaagta 120
 ctccaagact gtgacagaga tttagaatgt gatcataata ccaagtttca gttggaactt 180
 attcagtatg gtctctttttc acctgggtttt tggacgagag aaaatgttct gctcttctat 240
 ttggagctcg tgtcagggtgt attcataagg gacactctct accttttcta caacanaggt 300
 gaaaaacatt tgtttgcgat ttaaagtctg tttttggaga cacaagttcc actgtatgca 360
 gacataaaac caaactggaa gaaccaacac tttaccgttg gcctcaccgt cagggtctttg 420
 tgtaaggaat atcaacgaca gtattc 446

<210> 4773
 <211> 422
 <212> DNA
 <213> *Cyanidium caldarium*
 <223> Clone ID: LIB190-048-Q1-E1-C4

<400> 4773
 ggctgacgca cgcgtccgaa atatagaaga gcagcttcaa agtatccttg aggagaaacc 60
 tctgtgcgtt acttttacgt ttggattgtt accttcagat tggttggaaa ggtttcactc 120
 aaacgacatg ctctgtgggtg gcacgtgtac cacagttgaa gaagcgaagc aactcgagtc 180
 gttaggcggtt gactttattt cagttcaggg agcagaagct ggtggacacc gaggaagttt 240
 tattttttcat ccaccgcatt caacagccaa acgttggttct tctatccgc tcgaaacctg 300
 tttgttggac tgcttatctg cagtaaaact gcctttgata ccagcaggag gtataacaat 360
 tggaaaacaa attcgggtcaa tttaaaataa aggccaatt ggtgtacaac taggcacggt 420
 at 422

<210> 4774

<211> 407
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-048-Q1-E1-C6

 <400> 4774

 ccgggtcgac ccaaacgtcc agaggattcg aggagagaga cagacagatg gccaacgctg 60
 gtcaagatgg ccttgtgcaa gtcaacaaac atagaaaagt aaagagattg caagaagata 120
 atattttgaa tagagcacta tcacaaccag gagatgtatt tctgtgcttt tgcaacatcc 180
 agttgttggg gaatgcagaa agagctatta taggaaatat tacttgtcca gaaagtatcg 240
 aattgtgtcg tctattagct ggacatatag cggtttggtt cgatgaacat ttggatgact 300
 ttcgtttgga agctatcttg ggagcactat tgtgtacttg ttattgtgag tggaagcggt 360
 ttgaaggaga attgggggta caagaatgga atgaattgga gaagata 407

<210> 4775
 <211> 229
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-048-Q1-E1-D1

 <400> 4775

 gcgtccgagg gttactcagc aagaatgcc a gtacgtccaa gagtcgtatt gtgtcgagta 60
 tgaagaatgt cagcaagtta cccaggaagt ttctccttca gaaattgtct actacgggtga 120
 atcttcttct agcagtagtt actactacta gaacacttgt gaaatgcgca aagtcgcaaa 180
 gtagagtgtt cctttttgaa taaactgtta ctttttgtca aaaaccaac 229

<210> 4776
 <211> 350
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-048-Q1-E1-D3

 <400> 4776

 ggtcgacgca cgcgtccgac cacgagtcg cccacgcgtc cgcccacgcg tccgggtttg 60
 actaccgaac gatattccat tgtacatgac tgaaagtaca gtanaaagtt gatatgaaaa 120

ctgttgcttc ccttcanacg attaccttta gtgtcattgt ctctcaatgg gaacacattc 180
 cccgacagtg tatacagaga ctccgaaag aactcttgac tatgctggta gaaaggttca 240
 caagggagaa gaaactgtcc ttgggggttc tcaagtgggt ggaggggaagt gagtttcagt 300
 ttctcaattt gagcgggtcaa ggtggaaaag tgaacgatga atggatgact 350

<210> 4777
 <211> 357
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-048-Q1-E1-D5
 <400> 4777

gaccacacg tccaccacg cgtccgggtt ggaatgtttg aaaagcttgt tcgactcaac 60
 tatggtggat attggttgaa gaatatcgga attagtccat attggaactt tcacttggtt 120
 ccacaactaa ggcttgcaga tggaatcaat gtgccagtat tgccaaactt gcaagacctg 180
 ctgcctacag ttctgaaaat ggctggacac tccaaatggc acaatttcac gcgtaagtac 240
 atcttgttcc tatgacagtg tgagagtata aaggctctgt tttagaccag acggcacggt 300
 cagattcgaa gcgttcacat aatatttcaa agatatctag aagtattaga tctgcag 357

<210> 4778
 <211> 392
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-048-Q1-E1-E1
 <400> 4778

attcacgggt cgaccgcacg cgtccgattg tgagggtggaa caggaagtgg tagtggaata 60
 tgtgatccta aacgttccaa cgtgggttgaa taaaaggac ttgacgaaag ctttggttaa 120
 agcatgcgtg aagtttgagt cagtgaaaaa gttgcacgga tggaactaca gttttatttc 180
 gtttcgctca gagcaagatg caagtgaagc gaaagtcttt ttggaatctc agaaaatcaa 240
 aggttttcac tgtgttttgg aacaatggcg caatgttaac aagaaaagga aacacaagga 300
 gtgtttacaa atagttgacg atagaatgaa acaagtcaag tgttcttcca cgagttaaga 360
 atttgaaaa agattgaaaa agactgttgc tg 392

<210> 4779
 <211> 201
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-048-Q1-E1-E4

<400> 4779

 gcgtccaaaa gaaatccgaa aaagaagaga aaaaggtaag aaagaggacc gaatcagggt 60
 aagaggtana ggagcaagaa gagaagagag aatgctgggt ggagtagcga aacaagagaa 120
 ggaagtaaaa aggtaagaaa gaggaaaggt ttacgagaga aggaagtaga aagaagagag 180
 tgtaaggcgg cgtcataata g 201

<210> 4780
 <211> 221
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-E9

<400> 4780

 gagaagagag aatgctgggt ggagtagcga aacatgagaa tggaagtaca aggtaagaaa 60
 gaggaaacgt ttacgagaga acgaagtaca aagaagagag tgtaatgcgg cgtcataata 120
 taaatccgaa aggagtagaa gacagcattg tggaccacta cccaacatc gacggaattc 180
 tcatacagca cgcgtgctct catgccacct ttaaaggga c 221

<210> 4781
 <211> 366
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-F1

<400> 4781

 aattcgcggg tcgacgcacg cgtccgacca cgagtccgag aggaccctac ttgcaagcac 60
 acgctcgtgg acacgaacat ggtttctaca atgactgaag aacaacaagc gggatcaatca 120
 acggtgcgtg ctcgaaacaa cgattctgtt gacgaagagt tgggtttgaa ggaccttctt 180

cccaattctt ttgtgaggcg ctactcgtat ggaaacatgg gaggaatgtc acaggaatac 240
 caccacactg ccaagcaagt gatgaacttg ggacatcccc aagcactggg attgggtggg 300
 ttgtcttcaa cagactttat gttgagttgt atcaacgcaa atttgttacc cagcagcatg 360
 acaaat 366

<210> 4782
 <211> 427
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-048-Q1-E1-F11

 <400> 4782

ggctgacgca cgcgtccaat tccaaaataa ggacgatcgc ctacggttcg acgtaacaca 60
 tgacagtagt tgagttctaa acgaccaac tgagtatcag caaccaaacc caaacctaca 120
 gatattcgtg ttgtttcaaa caaattcttc caaggagctt ttcttgtaaa cacttggcca 180
 agtacagatt gagactcctt cacagacgaa atatctccaa ttgtagcaaa aatatgagct 240
 ctaggttgaa ataaattacc taatactcct ttactccca gtggaatact aagagaactg 300
 aagatggtat agaacaattc tcttcccaag ggatcttctt tctcccatgg ccctactcct 360
 cgagtttgaa aacctcgaaa actattagga ccacctaaat aaaaacgatc canaacagtt 420
 gaagaat 427

<210> 4783
 <211> 408
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-048-Q1-E1-F5

 <400> 4783

acccacacgt ccagatatcc atgctgatac gggatcccag tacgtgacga cttacgatca 60
 gtaacgatag attatcatga tgaatatagg gagtaaatta agaattagat atcgatgtaa 120
 ttcatagagg cactagagtg agttcatttc ttgcatgaat gcatctggtg atgaacctgt 180
 gtagctcatt tcacataccc totatcatta ctactgtcg gactatgcga ctgataaggg 240
 tatgaagtcc actaatggta ctcttcgcta aagtgacttt tactacatag tcttttcaag 300

aataacttca tagcgctctg acttttggtg agacatttct gtaaccttag tactctctac 360
catttccacc gactccgata aggttatttc agtgttgaac cccttttt 408

<210> 4784
<211> 410
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-F6

<400> 4784

ccgggtcgac ccaaacgtcc agacaaggac gaggatgtgg agtatcctag gaacaagtat 60
tcaactggga aaacaagtaa ctttcaagtt tgcgccatca agacattcat atttcacttt 120
atggcgctcgt ttcgcgcaaa ctgccaacaa caataacttg tccacagatc tacctccgca 180
cgtcctgatc aagatgcccc ctctttctcc tactatgaaa acaggaaata ttgtggagtg 240
gaaaaagaaa aattgagaat ctgttacaac cggttgacta atttcggaaa ttgaaacaga 300
caagggaact atggagtttg aatctcagga aaaaagttat ttagcaaaaa tattagtgcc 360
atcacgaaca cacgaacttc ctgttggaag gttagttggc attttagctg 410

<210> 4785
<211> 354
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-048-Q1-E1-F8

<400> 4785

ataagtagga aagagcagca gcattttattt catattttca ttgtgcattg tggaagaaaa 60
tggctccaaa aggtgcaaag agtgttcttg ttgcaggcaa gaaacccatc accaaaagtg 120
ataaaaagtc caaaaagaag aggtcagagt cctatgctat ctacatttac aaggtcttga 180
agcaagtgc tccggatact ggtatatcct ccaaggcgat gagcatcaag aactcctttg 240
gtaaacaata tttttgaacg tattgccagt gaagctagta nacttgcagc ttaatccang 300
acgaagactt tgacttctcg tgaaatacag actgctgtac gtctgttgct ccct 354

<210> 4786

<211> 333
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-048-Q1-E1-G11

<400> 4786

gcgtccgact caaggaagaa tggcttccga ggaatccaac ccgattggaa gtcactcagc 60
 ttgacttgga gttgattgaa aggatagaga aaaacaacaa gacaaagaca gaaaagccac 120
 taggtaaacg ttacttgcca agtggtgtcg cgcgaggagga tacaagtaga ctaacgacag 180
 cacaacgcat cggcttggag gaaccacacc agtgaagccc aggggacgag cttctgtaca 240
 gattcggttt tattttttca ttgtgaagta aacottgaaa gaatggttgg tgcattgaaa 300
 agacataaag cgacgtttat gatananaan aan 333

<210> 4787
 <211> 300
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-048-Q1-E1-G2

<400> 4787

cgtcgcgcca cgagtccgaa gggctctgtt ggtatttcgc aacattatat gagtgtcatt 60
 gactattatt tggaaatcgt tttttctatt ttgattccat tggcacttat tcgtaccaat 120
 gcatattttg atctattact aatgggtgaa gatgctattc tgggctcgta tgatgacagc 180
 ggatacgact ttttcttagg aaatcttaag agatattcac ctgtaagtag tacagaagat 240
 attcaatttg cagctattta tcttattttc tactataggc ttaccattcg atgcatcatc 300

<210> 4788
 <211> 381
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-048-Q1-E1-G3

<400> 4788

ggtcgacgac gcgtccgaaa gttaatggag aaggaactca ccttcgaata ccattcttcg 60
 acgttcccat catttatgat gttagagcaa agccaagaag cgtgcagtct cttacgggaa 120

gtcgagatTTT acaaTggtg caaattacac ttcgagtact ttcaagaccg gacccagata 180
 aaatacccgT tatttatcaa acgttgggaa tcgattatga cgagagagtt cttcctagta 240
 tcgtcaacga agtttttaaag tctgtagttg cgcaattcaa cgcttctcag ttaattacac 300
 aacgggaaca agtatcgcgT ctgatttcaa gaaacttgag agaaagagcg aaagactttt 360
 aatatgtatt ggatgatgtg t 381

<210> 4789
 <211> 408
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-G5

<400> 4789

cccggtcgac cccacacgTc cagtgcAaag agtgTtcctg ttgcaggcaa gaaaccaatc 60
 accaaaagTg ataaaaagTc caaaaagaag aggtcagagT cctatgctat ctacatttac 120
 aaggtcttga agcaagTgca tccggatact ggcatatcct ccaaggcgat gagcatcatg 180
 aactcctttg tgaacgatat atttgaacgT attgccagTg aagctagtaa acttgcagct 240
 tattccaaga cgaagacttt gacttctcgt gaaatacaga ctgctgtacg tctgttgctc 300
 cctggagaac tcgccaagca tgcagtttcg gaaggTacga aagcagtaac aaagtacact 360
 tcttcgtaat acgtactttg aacatatggt gtttgtcaac accttttt 408

<210> 4790
 <211> 347
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-G8

<400> 4790

ccgggtcgac ccaagcgTcc aggtgacggg tcaccgctct tttcgatcct aggaatacca 60
 ctaagactca caagcagcac tttggtatta ctgttacttt actgaaacaa gtaccagTga 120
 tatcagatgg agtagTtcct ttggatatct tcctaactgc tccacatgaa gttttacgtg 180
 tggTtcattc ccatggttca agcttctcTca tggtagagaa ctatagTgct ggaatcatcg 240
 tgactgtgta gcgtggctct caatctgttc tagctagcat gttcccgat cgtgtcctac 300

ttgaaaattc gctagatggg ttggctactg tcgcactgtt atgggttg

347

<210> 4791

<211> 373

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-H1

<400> 4791

attcacgggt cgaccgacgc gtccgaccac gagtccggcg tccagtatga aaggagaaac 60

gagtgtagca ctgtctagtc gtccaactca gcgaaacagc aataactgtg aaaatgcagt 120

aaactagcag taggacggaa agaccccata attcttgact agatagggtt agggaggaga 180

gagaatcatg aagtagagga ggtggggtaa gagatgaaag accactgcat gaggataagg 240

aatctaactg agtaaggaaa ataagcttaa gctagtttgg ctggggaagt aaagcctaag 300

aaagagtaaa ttaggcaagc aaaggcatga gagaagtata atagcagaag catgcttgaa 360

gaaaaagaaa gag 373

<210> 4792

<211> 433

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-H11

<400> 4792

ggtctagaat tcacgggtcg acgcacgcgt ccggttttaa gtttgcaaag taaaaataat 60

agaacaagtt taaaaaggcc aatttcgtct tctagtcaac ttttgcaat gactggagct 120

acttcctctg cttccgatga cagtgttcca gatatgggaa agagaatgtt cttaaactat 180

gtcttgcttg gtgggtgctc cattccaatc ttatctatgt tgggtgggta tgcatacttt 240

ttctatccac cctctcgtgg tgggtcgggt acaggtactg ttgcgagaga cgtgttcgga 300

cgagaaataa agaaaaagga atttttggaa acgaggaaac caggcacgca tgagttggta 360

caaggaccta aaggagatcc ctactatctt attgtgagtg aagatggaca gttggactct 420

tatggactca atg 433

<210> 4793
 <211> 332
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-H3

<400> 4793

attcacgggt cgaccgacgc gtccaagcaa aaaaaaggat cccgtcccaa agcacttggg 60
 ttgttcatac acatgttgaa aagggttttaa accatcacag cctaatacca ataaaggcgg 120
 tgggtggaaac aaccaaagac tttgttcatg gtgccaaaac acagggttga tctctgtggg 180
 aagtggacag aggtgtcctt gatccaacat ggtttcaacc aacattactt ccagtctgtt 240
 aggggtctgta gatagatgaa aaacactgtg tgaaacaagt ttcttctgaa tgttgccctt 300
 atacaacaaa atagtgggtac cctgacaaac ca 332

<210> 4794
 <211> 280
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-048-Q1-E1-H6

<400> 4794

cccaagcgtc cacggacgcg tgggctattg aagggtctatc ttggatcaac tttgccttta 60
 gcctattcct ttgtggaagt gcaatagcag atgggtttgtt ggttggttca agaagtgcag 120
 gctcggggaa acaaagtagt ggatatagta gtaatgcgtg agctgttggg tacttgtgac 180
 tagattattg tttcatgttg tgcagaaaat aattcgttgt ctgtaaaaca gattgtaatg 240
 gtgcagtgtg ttaaaacata gcttcatagc agtttttaat 280

<210> 4795
 <211> 345
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-A2

<400> 4795

gcgtccgacc acgagtccgg ggaaggataa cgacacgaac atcggaagta ttatggctgt 60
 tgattcacat gtatgttcaa cgacttcatt ttcgacaagg gaatctggca gcaaatccct 120

gttgaaggca aagcacgcta agatgtcatc gctgtcatca acatcaagaa aatcgagtt 180
 gttcgctctt gatgagacgt ttgcgaagaa ttttcagtct ggagattcct cgaactcaaa 240
 tagtttgatt gagattctcg catttgcagc ttctcaagct ctataaacgg cagactgact 300
 tagtttctac ttgttgtcat tgaaatttta ttactcgtaa ttttc 345

<210> 4796
 <211> 363
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-A4

<400> 4796

aatttacggg tcgacgcacg cgtccagtct tgggccttgt gagccctgga tatttgaaca 60
 agtagaagtt tataatattgg aatccatgaa gtggcgatat cgcttattag tgtatttga 120
 attttgctta gaacaagcac gtcgttttgg gttacctttc atgcgagcgt tgccattgat 180
 atatcatoga gacgtgattt gtcgtcagtt tgatttggag tttttattcg gtccttgcac 240
 attggtatcg cctgtaacca atcccgaaga tgaagtaact ttttatattc ctgatgattc 300
 tgtcttttgg tatgattggg ggacgggaga aagatggaga ggaggacaag ttgtcactag 360
 aaa 363

<210> 4797
 <211> 369
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-A6

<400> 4797

ggtctagaat tcccgggccg acccacacgt ccaccacgc gtccggcctt ggcatctctg 60
 ctgcttggtg gtggttcacc gtacttggaa aatcttcggg ttgttgggtg gtcaaagcac 120
 atcctgttat gacatctctt cctattccta ttcacagcaa caacagaaag gactcatcac 180
 cttccagttc acctggcaag agttgttccc cgcgatggga agttcgggca ataagaacac 240
 ccacaggtcg aaggaaacac ttttatgtgg accatgaaag aaaagcaact tattggaata 300
 tgccaaagga gcaaacagac tcggatggca cttgtacaga agaaggtggt gcaacaaact 360

tgacctttc

369

<210> 4798
<211> 346
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-A7

<400> 4798

gacccacgcg tccaatttga ctggggttta tagaatatga cctttcgata ttttctccat 60
gcatgtacaa catgtgtaca taaatatacc aactttgttt gaaaacatct ttatggacca 120
gtaactgttg gaatgcctct cccatcaaaa gactacgact tgggtccaagc aatgattgtg 180
ggagaaatat tgtttccatt agttgcttgg gcttcagtat agttggtgga ggtatcatgt 240
ctttttgtgt acaagtgcaa actttccacc taccttacct tgaaagggaa caacaatagg 300
gtttcttttt gtacaagact cgaacaagtt ggaaatgtac gagcat 346

<210> 4799
<211> 435
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-B10

<400> 4799

ggtctagaat tcccgggccc acccacgcgt ccagtggatt catctttag caccaagtgg 60
ctgtttattg caacccact gttggaagtt gcttgactg atgggcagcg aattgaaatg 120
attcctttga agaaagatat aaaggaattg ttttctcga ctttaaagaa gaactttgag 180
tcgaacgaag cgtcatggga gtgcagtgt gttgaaaccg cagttgctgt ttttatccag 240
tattatgaac agtgcgtgga acagtactat ctacgaggca aagattatga gctacctggt 300
tattccaaag taaaatagat tcggagtatg attgaagatg ttctacaaat agagaaggaa 360
cttggaata tgcgtcagac ccttggtggc gttcggagtc gtctttgtac ctttgaagct 420
gcatcacgca gcgaa 435

<210> 4800
<211> 425

<212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-B11

<400> 4800

aattcccggg cgcacccacg cgtccagaaa ctttgaaaga ttccgtagct cgtcttggtt 60
 gttatttggt cacttcagag cttgacagag tttcttggtt gtactccttg agagactggt 120
 ttgtgatagt aaagcatggt gggagcactt cagggttgctc tggactttat tggacaactc 180
 cctgttggtg aaaattttat catcagagaa atctaagcaa gatgctggag cagtagcaca 240
 aggaaaaagc aaaaagatga aggcagtttc ttcttcagtt ggctcagtac gacaaggcga 300
 gtttaattgg atggaatttt tgaagacata ttgtaatctg acagagtctg aagcaaatga 360
 atgtttgtat gctatgaaga gattctcgga gagtgagatg gaagtaatca gtactagtat 420
 gctga 425

<210> 4801
 <211> 116
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-B2

<400> 4801

acgcgtccaa aggaaatatg acccagtaat gaggagtgga gtaaacagaa aaggaagtaa 60
 aaggagggaa tgaagggaaag ttatggcaaa aacacgtgcc agcagcagcg gtaaaa 116

<210> 4802
 <211> 366
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-B3

<400> 4802

ggtctagaat tcacgggtcg acgcacgcgt ccaaccttat gccaaagatc gttgggggtgc 60
 aactcctatt gatgatgcgt gggaaaatgg gcatataaaa gtagttgaaa ttcttgaatc 120
 ctttctagag cgtgaggag actccgaatc tggaatgact gaggaaatggg gacaaagaag 180
 aatcagtat cggtcggata aaggatatga cattccgttg aatactggac atcgtccttt 240

aggcgcccttt ccaagtttct ctttgacaaa tgatgttgct tgtaacgctc ttcgtcgtgt 300
 agtgtcgagt ccagtgaaag aagaaaccga tgctggatta cagcaaatac acagaagtgc 360
 atcatg 366

<210> 4803
 <211> 294
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-B4
 <400> 4803

ggtcgacgca cgcgtccaga aagtggcaca acggtaatgg gaaaggaaac agtagtaaag 60
 aaaagcaagc gtgtattggt caaactgttg agtcgggctg gtacacgata tttttataacc 120
 aaaagtaaga ataccagaaa tactagtggc aagttggagc tcataaaata cgatcccatt 180
 gtcggaaagc acgtattgtt caccgaaacc aagttgaagt aacttggaca gctgtcgata 240
 gaacgcctat aagattgacg ttggcaactt acataaacag cgctttactg aaaa 294

<210> 4804
 <211> 357
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-B5
 <400> 4804

gggccgaccc aagcgtccac ggacgcgtgg ggtttcgatg aactacagtc cctattcgat 60
 aactaccgac aaatcagaag gacatattgt tcccgggtact ttttcaagat ttgagtttct 120
 tgaagggtcga gtcaccggtc caacgtgagt atttcttttt actgctcgat acagtctttc 180
 acgtctttgt agcgtcttga accctagcat acttgacttt acagtgtcta atgtttcaga 240
 tgctgccttt ggagaatgga gagcattatc ggcttcaagt agagcaaaag aactggaaca 300
 cagaagaaac gtcaccaaag cgacaataga aagtctcaag aagactccta ccgaaaa 357

<210> 4805
 <211> 349
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-B6

<400> 4805

gggtcgaccc acacgtccga ccacgcgtcc ggcagaatgg acgacaggct tccacgtttc 60
aaaagaaacc tccaaaagat ggcttaataa aaggcaaatt ttccttaacc cttttggcaa 120
atctcctttt ggtgaaacca tggccatcat gaaagcggcg gtcttggcat ccttggccta 180
aacacaatgc gccgttgcaa tacaagcttc tcctctagag gacactttgg gtgcctttat 240
gcgggggtgt tatcactcgc aaagccaagc accaaaccct atctgttgca agttgagctg 300
tcattatacc caattttgtg aacaatttat cgtccaaact caagaggtc 349

<210> 4806

<211> 355

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-B7

<400> 4806

ccgggtcgac ccaaacgtcc aacatcatat cgagccacga tgaaaactgg atgcttactg 60
gaaatcacac aggcattgtg aagtactggc agtccaagat caacaacctg aacgcatttg 120
tatcccacga cgaatccatt cgagacatta cttttgcagt ttctgacgta aactttgcca 180
catgttcgga tgatgtgacg ataaacatat gggacgtatt gagaactgcg gatgctttcg 240
attttaccgc atgcgatgaa taatagcaac ttacaggaca tggctgggat gtacgttgca 300
ttgaatagga tccgcagttt ccgaatattg cttcgggctc caaagattct ctact 355

<210> 4807

<211> 376

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-B8

<400> 4807

gtaacggtct agaagttccc gggccgaccc acgcgtccaa agacatttca tggcacccaa 60
ggaacgtagt aaaccaaaga gtcgctcttc taaagccggc cttcagtttc cagttggacg 120
tgtaagtaga ttcttaaaga atggaaacta tgcagaaaga gttggagctg gagcaccctg 180

gtatttagct gcagttttgg aatatttgac tgcggaagtg ttggaactgg caggcaatgc 240
agctcgtgat aacaagaaaa cccgtatagt tccacgtcat attcagttgg cagttcgtaa 300
cgacgaagaa cttaagaagc tgttggggcg tgtgactatt gcttcaggtg gcgttcttcc 360
caacgtccat cccaat 376

<210> 4808
<211> 303
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-049-Q1-E1-C1
<400> 4808

gacgcacgcg tccaacttgc aacagatcca gtgtcgatgt tgggtggttt acagtccagt 60
ccttacttgt tattaacgca tttctttgcc gttgctctct acggatgcgg aaggcagttg 120
aaatattttc ctagttggga acgagtgaga acgagttggt ctctgtttag acatgcattc 180
aatatcgtga agcctcttat tgatgacgaa aacgtcacct ttctcagcaa gattcctata 240
tcacacatat gattttgttg tgatgtggag aacacttatt taaacgtttg tatttttctgc 300
ttc 303

<210> 4809
<211> 364
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-049-Q1-E1-C2
<400> 4809

cacgggtcga cgcacgcgtc caatttcatt tcacattctc cttgtagaaa actatgaagt 60
ctttcggaat tgctattgtt ttctaagct ttgttattgc atcttatgca gcagttgtat 120
ccgaaatggc atccaatgag tttcaaagag gaggatacgc tccttctcct tccaaggaat 180
gctgcatgac cacttgtaaa tatgcagaac ttgccaat ttctcaacca acttatagcc 240
aagctccatc ttacattcca tctcctacct atggccaagc cccttctac aatcaatatt 300
cttcttcgta cggttcctct agctatcgtc tcttaactgc agacgaaaac caacttgtga 360
gcag 364

<210> 4810
 <211> 363
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-049-Q1-E1-C3

 <400> 4810

aattcacggg tcgacgcacg cgtccaaata ctatgaaatt gagtaatccc tcttatagcg 60
 acctcaatca gttggttaact gcagtaatgt cgggaatcac ttgttctctt cgttttccag 120
 gacaactcaa tgcagatttg cgtaaattag ctaccaatct gattccattc cctcgtctac 180
 actttttcat gattggattc gctccttttag ctgctcccgg aacgcagcag tacaagtcaa 240
 gtagtattgc tgacttgtgt caacaaatct ttgattctcg taacatgatg gcagcatgtg 300
 atcctcgtca tgggcgttac cttactgcag cagcttattt ccgaggaaag gtgccaacca 360
 acg 363

<210> 4811
 <211> 356
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-049-Q1-E1-C8

 <400> 4811

ccggggccgac ccacgcgtcc acccacgcgt ccgccacgc gtccgccatg acttggcagg 60
 gttgattact tctcgggaat tggctcaata ttttcattct ttggaaacta atgtcgtgga 120
 agaatttgag aatatcctag taaaagatat gttggatcac aacaaggaca aagtgcgtga 180
 aaggttgcat gatcaatcca tcctagcgtt gcaagtatcc tctagagtga aagatgctgt 240
 ggagttgatg gcacagtatg gagttggttg tattttggta actagtgacc atagcaaagg 300
 tgctttgcat ccttatcctg atgttggttg aatgtttacg gaaagagaat tcattc 356

<210> 4812
 <211> 372
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-049-Q1-E1-D1

<400> 4812

gtcaagaatt cacgggtcga cgcacgcgtc caagacattc tcacgagag gaagagagtg 60
gcagacaagc tttttttatt gttttcaagt ctctccaagg gcctttttaa ggaaaaaagt 120
ttgaaatccc agagtggaag cctgtcattt ttaaaagaag tgaaacgagt ttgaccccaa 180
gttttcataa aaggctaggt gaagtttgct taccagacct cgacgtttca cgacttcacg 240
ccaaagtttc atttaaaggt ggtagatttg ggatagttga cttgggaagc ttgaacggaa 300
cgtttttgaa cgataaacga ctttctgcgg aacgtgtacc tttggacgaa ccggttggtt 360
tgagcaacgg ag 372

<210> 4813

<211> 413

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-049-Q1-E1-D10

<400> 4813

ggctctagaat tnccgggccg acccacgcgt ccacttgtag gcacttttcc atttgteggc 60
aaggcgtggg aagttttccc gtccttttcg taccctctg ttagagtatc tcgtcaactg 120
ttttcagggt ttggtcttgc aacaatggct gctgcaaaca caaaggaact agaaaccaag 180
gtgagggaca ggctgggtgca actttacaag cagactcctt gtatgccaat aatggtaaga 240
atagcttggc acgacgcggg aacatatgat gtgaatacca aactggggg agtaaacgga 300
tcagttegtt ttgacgttga acagaagcat aaagccaacg ctggtctcaa agttgctttg 360
gatttattgg ctcccatcaa aaaggacttt cctgagatca gttatgctga cct 413

<210> 4814

<211> 433

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-D12

<400> 4814

ggctctagaat tcccgggccg acccacgcgt ccacccacgc gtccgaagaa gagaaaagcc 60

gtactgaaga ccgacacagg tactcgagga gaaaggagac ccaaattaag gtgagagaat 120
 ggacgataag gaactaggca aaaggatatg gtatctgcgg tagaacatat gaaagaagca 180
 gcaccgactg tttagcaaaa acacagcact ctgcagaaaa gagaaaatgt aaagtataga 240
 gtgtgcggcc tgccaaatag tagagaagaa atcgatgaaa gtgaaagcga gtaaaagatg 300
 aggtatagag aatggcggtc ctaacagtaa ggatccaaag gtagcgaagt aaatagacgt 360
 ttgaaaggcg tccagtatga aaggagaaac gagtgtagca ctgtctagtc gtccaactca 420
 gcgaaacagc aat 433

<210> 4815
 <211> 363
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-D2

<400> 4815

ggtcgacgca cgcgtccgac cacgagtcg cgctcgttacg gtttacgatt gttagtgcgg 60
 tttggatatg gcagaccccc aaactgaaag agcgtttcaa aaacatgacg ctatatcttt 120
 aaagcagatc gctggagtat ccaaaaagaa tgcaagatgg tacaagaata ttggggttagg 180
 aatcaaaaca cccaatgaag ccatagaggg agaatatata gacaaaaagt gcccttttac 240
 gggaaacgtg agtattcggg gaagaatttt gagaggaaca gtggtttcaa cgaaaatgaa 300
 gaggactgtt atcgttcgaa gagactatct tcaactgggtt cgcaagtaca gacgatttga 360
 aaa 363

<210> 4816
 <211> 357
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-D4

<400> 4816

cgcacgcgtc cgaccacgag tccggaagaa aagagagaga agaaagaaaa gaagagaaaa 60
 gccgtactga agaccgacac aggtactcga ggagaaagga gacccaaatt aaggtgagag 120
 aatggacgat aaggaactag gcaaaaggat atggtatctg cggtagaaca tatgaaagaa 180

gcagcaccga ctgttttagca aaaacacagc actctgcaga aaagagaaaa tgtaaagtat 240
agagtgtgcg gcctgccaaa tagtagagaa gaaatcgatg aaagtgaaag cgagtataaag 300
atgaggtata gagaatggcg gtcctaactg taaggatcca aaggtagcga agtaaata 357

<210> 4817
<211> 260
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-049-Q1-E1-D5
<400> 4817

gacccaaacg tccagttcca cttcccgtgt acatacacga gaggactcct tgtgccgcg 60
ttggacataa tgctacaagg ttccgaatca cagtcgtgtc ggtcaccttg ggggtgtaatc 120
tcacagttgt attaatcacc taagtgtaac tatgggatgt ttaccccatc actgttcaga 180
tagtatactt aatctgcctg tgaaattgta gctctaactc ccacagtcag tgctggataa 240
acagatatcc aaattgaggg 260

<210> 4818
<211> 371
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-049-Q1-E1-D8
<400> 4818

ggtctagagt tcccggggccg acccaagcgt ccaggagaat tttgtctgca atagtatgaa 60
gcaagtcgtg actgacacaa tagacttgct agaaagagta gagcagagat gcatagaatg 120
ggacaaaaag acagaaaagc tttcaggaga agtgaaacaa gaatatttgt cgtttttggc 180
gcctttttgtg tatcagcgct ttctcgtgtg tttgtttact tggaacgctc tgttgattga 240
atgttttcat tctaatttct ttgtagtcga aaccattcga ggggtttgtta cactgactgt 300
tggtgccctt gtttttagctc ttgccgctag tctttcgttt gcgcattatt atcgacgcaa 360
aagtatgccg a 371

<210> 4819
<211> 426
<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-D9

<400> 4819

gggccggaat tcccgggccc acccacgcgt ccacccaagc gtccgcccac gcgtccggcc 60
atgcttatcg tgacctatc acggaatttg tcgaatgttt gtatgtgaat tacgactttg 120
aaggagcaca agatttgta cagaaatgtg agacaacttt gaagcacgac tttttcttga 180
ttggaacgtt ggaggagttt ttagaaaatg ccagactatt tgtttttgag atatattgca 240
gaattcatca agtgattgat ttgaatatgt tggctgcca gttaaacatg gaccgagagt 300
ctgcggaacg ttgatagtg aaccttatta ggaatgcacg tctagacgcc aatgtggata 360
gccaagcaag tcacgttatc atgggagtga aaactccaag tgtctacgag caaattgtgg 420
attcta 426

<210> 4820

<211> 434

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E12

<400> 4820

ggccagaat tcccgggccc acccacgcgt ccacgccaag tgtcaaggca ccttttgttg 60
ccaccgtaac tgttccttca ggtttcaaag ctgttatgag tggcatactt gtcaatcaga 120
aggaatcttt tgagacagca aaaggaaata tacagaatat ctattgtttt gaacaatcca 180
ttccagttcc ttcctatctt atctcattag ccgtcgggtgc ctttgagtcg caggaattat 240
cagaaagggtg tcgtgttttg tcagagccgg aaatcattga aagtgccttg tttgaatttg 300
ggtaacgga gcagtttctt aaaacagcag agtctgttgc aggcttctat ttgtggtcga 360
gatatgactt gctatgtctt cctccttttt ttccatatgg gggatatgga aatccatgtt 420
tggcttttgt tacg 434

<210> 4821

<211> 362

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E2

<400> 4821

ggtcgacgca cgcgtccagg ttgtagttgg gtcgtcgcgt tttggtgaca aggaaagata 60
aatggtcgtc aaaacagaaa cctgtagttt ttcaggtttc cgcactctacc ccgaaaaagg 120
cactcgattt gtgcgcgggg atggcaaact cctcatcttt agtaaccgca agtgcaaadc 180
ctactttcat atgcgtagga gaccggcaga gttgaattgg actcagttgt atcgaagaat 240
gcacaaaaaa ggacagcaag aggagacaca gaagcgacgt cgtacgcgca aagttgctgc 300
tgtaccgaaa ccggtggaag gcgcgtcgtt ggaagtgatc aaagcaaaga gaacgcaacg 360
cc 362

<210> 4822

<211> 368

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E3

<400> 4822

aattcacggg tcgacgacgc gtccgggtac aattacgttg tggatgcgca atgattgttt 60
ccgtggcaac tcctgaagtg acaactactc cttctactct agagaaaaga cgaaatagtg 120
actcgttatt accttcacaa gctgaaagtt taaaagatgg tttcaaacaa gtggaagaac 180
aacacagacg agatttaaaa aagctcgaaa ggcggtataa aagcgtctgtg aaacagctgc 240
aactgaagca cagggatatgc aaagtgttga aagcaaagaa tacaggtggg gtaagtaagg 300
aagaggagaa gtgaccata aagtcattgag ggagattgtg ggagtgggaa tgttgccctc 360
tcattcctt 368

<210> 4823

<211> 376

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E4

<400> 4823

gtctagaatt cacgggtcga cgcacgcgtc cagtgcgaat gtggtgactg caaagcgacc 60

ttctagtgtt gttaaggatg cgcttcacat aacgaaagat atcaattcaa tcgaaggcct 120
 ttcatggatt aactttgctt ttacgctatt cctttgtgga gtagcagcag ttgacggatt 180
 gttggtggga gataagacca gcagctccgg caaacagaat acaggagcga acaatgcttg 240
 agtttcttga gaagttacaa atagtcgtgt ctatgaagtt gtctgagttg cgtgagaaaa 300
 gacaagtagt tgtgtctatg aagttgtcgt aaatagttga tgtgtgttgt gttgttttgc 360
 cacagaaagg atgttt 376

<210> 4824
 <211> 55
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E6

<400> 4824

tatatctttg ttcttatatg tatgttggtg aagctttata tcttgccact ctgga 55

<210> 4825
 <211> 310
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E7

<400> 4825

ggtctggaat tcccgggttcg acccacacgt ccaggaaatc gtaggtaaga aagatgtcac 60
 actatctttt ctacatctcc tatcacatat gatggctggt agcagaacta tattttgcca 120
 cttatgaatt aattttaggc tcaacataac gaagacatca ttgcatactg aactggaaat 180
 gagtagagac ttactaggac atatgagcct gcatccaccg atatttctct ttatgggaca 240
 tgaaatcggt gaacttctgt tagtattggt aattacacag cataatatgg ctatggatac 300
 gtctgaggat 310

<210> 4826
 <211> 373
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-E8

<400> 4826

ggctctagaat tcccgggtcg acccaagcgt ccaggaaaag ttgtccaacg agaattcttc 60
aatgttccc ggagaatata ttctagtaca cctgattgtt gcaagtgaag gaaaactttc 120
ccagttaccc tctcagttga actcggaatc cgatgtccga gaagcattga agattctttc 180
tagtacttgg agtgataagc ttcaaggact tgaaataatc tgggttcctc aggctataga 240
cgatgtgtta actgagaagg aatgctcct acagcatccc gagttgcaac gcatttcgta 300
attgagacgt attgtttggt gatgagttta ttgagtaatg ttttaagggt tagtagggat 360
atagatagga ttg 373

<210> 4827

<211> 359

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-F1

<400> 4827

ggtcgacgca cgcggtccgac cacgagtcgg cgaggatttg cgtgcgatgt gggtttgctt 60
ctccttgtgg ttcttttttt gaaactagag cgtttcacaa gagtgcttgt cataattcat 120
ccttttacgg aaacagaact ttctgaaagc aaccccagag aatgtgttg tattttgtag 180
cgggtttcgg taacctgcgt tgtaccattg aaagcctaaa taccaagcaa gctcccgtgc 240
aatatgtttc tttagcgaaa gagttacaga cagctctaata caaacttttc aaagagaaga 300
gttcagactc acttgaacaa cttcttgctg gagattgcgt ttggaagaat tgcataaag 359

<210> 4828

<211> 413

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-F10

<400> 4828

ggctctagaat tcccgggccc acccacgcgt ccaaatttaa aaaacaaaaa tctgcaaggt 60
gaagcattgc cttcgcaaat aaacacatca gaagatacat aaaatatggc tctcttcggt 120
tggctcttgc ttgcgacggt tccgcagagt tgttgtttgt gtgtttgtct ttggcgagag 180

ccattcctcg ttgctttgtt ttttgtgtcc tcttttacct ggctgttgat gcgcagctta 240
gtacggcttt cttggatagc tacctctcgt tacgtaacaa tgtattcttt ttgggttctt 300
ctatcttcgt gtttggagga actcgcatga tgtttcgttt ataagatata taggcaccta 360
aaatctgctt tatgggaatc aaatgatgct tcaaggtctg aagactatcc aca 413

<210> 4829
<211> 437
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-049-Q1-E1-F11
<400> 4829

ggtctagaat tcccgggccg acccacgcgt ccaaccacgc gtccgcccac gcgtccgcag 60
taaatgaggc gagaaagcat aggaagtga acggattagg aaccctgtga gtctatgcag 120
taaaagaaag aatgagtaag aaaaaaggga gtcattccac caggggagta aaggcgcaag 180
aaagaaacc aaagcaattg acgggaatcg gaaaaagggg tggatcacgt aaattaatcc 240
gataaaccga gaaccttacc tctccaagaa ggtgttcac ggctgtcgaa agaacgtgct 300
gtgaagtga agaacgtacg agaaagccaa gtgaggaaaa gaaggcaagt agagggcggc 360
ccgagaaagg agaaggcgta agacgtgata cagagtagga aganaagaga agagagctag 420
aaaggaggta aaagaag 437

<210> 4830
<211> 417
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-049-Q1-E1-F12
<400> 4830

ggtctagaat tcccgggccg acccacgcgt ccaggttgct caaggtgtga aatggcagta 60
gttgaagata acagagtctt tgttggtggt cttccttggt cagttagtga agaagacctt 120
cgtgaaactt tttccaaata tggagaagtt gttgatgcaa gggttgttgt tgaacgtgaa 180
actggtcgtt cccgtgggtt tggtttcgta tcctatgcag aatgttcctc cgtagacgaa 240
tgcattgccg cactggatgg caaggatatg caaggacgca ctattcgtgt gaacaaggca 300

atgtctcgtg aacaacgcga gagtggagga gactttcgtc gcggtggctg tggacgatac 360
ggaggttttc gttccgggtcc ttatgagaga cgtgaacgtg actctgatcg tagaaga 417

<210> 4831
<211> 350
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-049-Q1-E1-F2
<400> 4831

cgcgccacg ggatagttgt atgatttctt cctggaaagt gctcgaaaca ttctctcttt 60
gaatacacac aaaatacgct ctgtttgtgaa agcacctgga atggaactag aatatgaggg 120
tcacgtttct tgtaaaagcg aaaacgatga agacgcgctg tatgaaagtt ctttaacgtt 180
gggtgataac gaacctacag taagtattcc cataacatca tacaggagac aaacggtgaa 240
ctgtgagcac ggaagaccag cgggtgggac acctgaagaa ctggtggaag cagaaagtta 300
tacggaacct gacaagtggg aagagtcttt tcacgaagac actgtagttg 350

<210> 4832
<211> 367
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-049-Q1-E1-F3
<400> 4832

attcacgggt cgacgcacgc gtccgaccac gcgtccgccc acgcgtccgc acagtttgac 60
atgagagaag ttgtcctgca taccattttg gttttcctcg atgtctattg gggcctcata 120
aaagaagtga cacctatggt tgcagaatat cgatatcaag tcctttaga agaagacaca 180
ttggaaggcc atctgagtga caagcagtag attttgtgga aaaatgtcag tgctcaagca 240
aagaagaagt tgaagtggag ctatcttgat ttgagcaact tgccctctgga catcgacatg 300
gaacaagtgc agcgactatt tgatgaagtg catacaaatg gtttgataag attacaagca 360
ggtaaac 367

<210> 4833
<211> 368

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-F4
 <400> 4833

aattcacggg tcgacgacgc gtccactttg tatgcgctcta tagaggaatg tctgcctcac 60
 gaaagacttt tcttgtcgga gtcctgcaat actcggtttt cgaaatactc aatattcaaa 120
 gttttatttc atagttacct agcactgctg gctatccact attttcagat gataggccaa 180
 gtgacagaag gtcgtcaaga ttggtaggca tttcagaggt ttgtggagaa atctcttccc 240
 tgggtccaact gtttggctgt gtgtttttac cctggaagct tggtgaggac ttgggagttt 300
 cggccgcctg tatctcttct ttcacagget tcttttggcc ctttcttttg ttgtcaaata 360
 tttccaga 368

<210> 4834
 <211> 370
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-F6
 <400> 4834

ggtctagaat tcccgggtcg acccaaactg ccagcggagt tggtggctgt gaggggtgtgc 60
 agttgcttgg gtgtgtcttt tcacgtaaca tatgcttttc aaagcaccgt ttgttggaac 120
 tttgaagcga aattgagttg ccaaacacga aatactttta gaggtgaagg acttttgtat 180
 gttcgcccta ttttcaacct aaggagcttt ctttaccagt gctagcatat tcaacgttgt 240
 ggacttggtg catcagtaca actcgacgag agtacaaga acgacggctt ggcaagtttt 300
 cactggacaa agatttttgt tcccgcggt atgagaattg acagacagta cgccaacgtc 360
 cggttggaag 370

<210> 4835
 <211> 338
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-F8
 <400> 4835

ggtctagaga tccccgggtc gacccaagcg tccaggctag gtttcccact gagctacctg 60
 gacacctctg gtgatttgac tctgtctgtt gctttgaata atactataat gaatgttgcc 120
 ttaatgaaac ctttcggcag cagacaccct gacgaaagtg atgctgtttc tagtgcagct 180
 gctgctcaag gagacggagt tcgaaacgta ttgtcaaag acatgtcgca tctgccgcaa 240
 gacgagtcga tagaacatcc catctcacgt gacattgaag attatcataa agtgccatgt 300
 taattgattt ggatcttggt caagttaatg ttcaagtc 338

<210> 4836
 <211> 443
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-G12

<400> 4836

cggctctagaa ttccccgggc gaccacgcg tccaatgaaa tttccaaaga aatggacctt 60
 tacttgaaga aagtcggata taatccagca aaggttccaa agatccctgt atctggatgg 120
 actggagata atctttttga gaaagttcct gccgatcatc ctcttggaag gtggtacaaa 180
 ggaccttggt tgttgagggc tttggatatg attgaccgcg cactcgtcc agtagacaag 240
 cctctacgtc ttcctctaca ggatgtctac aagattggag gtattggaac tgttccagtt 300
 ggacgcgtag aaactggtgt cttgaagcct ggtatggtgg taacctttgc accagttggt 360
 ttgactactg aagtcaaac tgttgaaatg catcacgagt ctattccgga agctcaacct 420
 ggtgacaatg ttggcttcaa cgt 443

<210> 4837
 <211> 349
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-G2

<400> 4837

gcgtccatct catagttggt gttattgagg aacacggagg acgacagtag cgatgggatt 60
 gtttagtaga ctgtttgtga aaccgagtcg tgtaccgcaa agagtcgtag agtttcaaaa 120
 gcgcaaggcg gaaggttact ttacatacaa cgccgggaag tacgaccgat acatcaaac 180

acctatTTac ctgtttgtgt cttcaccgg tctttatgcc tttattgacg gttgtctttg 240
 ggcggcagga aagaaggaaa gtcaatcgtg aatagcgttt tttgtccttg tggacagtct 300
 tatgaactag tgattcgttt gttctgccag ttttagtttc ctgtaatga 349

<210> 4838
 <211> 358
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-049-Q1-E1-G3

<400> 4838

ggtcgacgca cgcgtccggc aataattccg ttactatgta tggagatggt gctgcgaacc 60
 aaggacaagt agcagaggct atgaatatgg cagcgttatg gaagttgcct tgtgtttatg 120
 tatgtgaaaa taacaagtat ggaatgggaa cgagcaccga tagagcttca gcaaatacca 180
 acttttatac tcgtggagat gtcattcctg ggattcgagt agatggaatg gatgtattgt 240
 ctgttcgaga aggaatgaag ctcgcagtta attatgctcg ttctggaaag ggaccttttg 300
 tagtagaaag tgttacttat cgctatcatg gccattctat gtcggatcct gngttgtc 358

<210> 4839
 <211> 360
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-G6

<400> 4839

ccgggtcgac ccaagcgtcc acggacgcgt gggtagagatt gaccatgcac gtgttctaata 60
 taccagtccc gctgcacgtt ggtgacacct aaataaaaag cagacgtaga acaagaattt 120
 tagctgttcc agaaacaaga acagcaaattg cgcaattggt tggtagcagc aagcagttag 180
 cttgaacagt tgatcttttg ttcaagtgtt tgtacaaaga gtcgatttct tcgtagttca 240
 aagtcgagtt ctctgtcgc tcagaataag acaatctcag ctgtgtttac ggcttatctc 300
 aacgtgaaga tgtcgatgca acgtgaagct ttttcgtgca acaagccga caagctagtc 360

<210> 4840

<211> 373
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-G7

<400> 4840

ggctctggaat tcccggtcg acccacacgt ccacgtgtag tctatgcagt aaaagaaaga 60
atgagtaaga aaaaagggag tcattccacc aggggagtaa aggcgcaaga aagaaaccca 120
aagcaattga cgggaatcgg aaaaaggggt ggatcacgta aattaatccg ataaaccgag 180
aaccttacct ctccaagaag gtggtgcacg gctgtcgaaa gaacgtgctg tgaagtgaga 240
gaacgtacga gaaagccaag tgaggaaaag aaggcaagta gagggcggcc cgagaaagga 300
gagggcgtaa gacgtgatac agagtacgaa gaaaagagaa gagagctaga aaggaggtaa 360
aagaagagta aaa 373

<210> 4841
<211> 296
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-G9

<400> 4841

ggctctagaat tcccgggccg acccacgcgt ccaggcaaat ccctgaaatc agtatcaaaa 60
tatggatagt cgcataaact gactaccaag cttcacagag ggagtacatg aggaccgact 120
tatcaacgaa gtatgagtaa gagaaggtgt aatgtgtatg acagcatgtc agtagctgca 180
tcatacagtg taattcgcgt accttttgca tactgtcgca gcgagtgaaa tacgacctct 240
taagatttca taccaattaa cgagctatca tccgcagcga gttgatcata ggcggt 296

<210> 4842
<211> 317
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-H12

<400> 4842

accacgcgt ccgcccacgc gtccggggac tcgacgattc aggatgtgcc tgttctaaag 60

gctttgatgg atacgaaaca taactgaatc atgtaacact atgaaaatgc taacttggac 120
 ttgatggaac gtatctatcg aatgaaaatg ccagagtcga agaactttgg atgtttggta 180
 ttactagag ccgtgctcta gtgtagaca aggcaaatg ggaaagctaa aaatgattcg 240
 gttccagcaa ataactgtac acattggatt atcttgtgac aataaaccaa tcttccaacc 300
 atatcaaaga cagaact 317

<210> 4843
 <211> 362
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-H5
 <400> 4843

ccgggtcgac ccacacgtcc gaccacgcgt ccgcccacgc gtccggagag aatcgatcgc 60
 gcacttgatg gctttcgtag gattctccaa cgtcaagtac aacacgaaaa gtccgcatgt 120
 cgtctgttta caaaccagca aaagagaaag gagatggaca acttgttttc atggagaccg 180
 ttcttgcttt ctaggtcaac gacagtcttt tatcccaaca ccgttacgac gacgttccga 240
 cctgaaaatg accgcacaaa ccaaagaagc cgttcggaa gccaaagaaa agacttttga 300
 atttcaagca gaagtttcca gagttatgga tattatcata cactctttat actcccacaa 360
 gg 362

<210> 4844
 <211> 325
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-049-Q1-E1-H6
 <400> 4844

ttcccgggcc gaccgaagcg tccaccacg cgtccgaagt ttggttgttt tcttggtagc 60
 agttgtacat tcaacatcat caaatgccaa agggaggaaa gaaagattct tcaaagaaag 120
 aagccacaag taaacctgca gcagcagatg ctacaagac gacagaaaag tctgggtccg 180
 aagccaagtt gaagggaact ggtgcaaaga aacaataaaa agttgactat gcatgtgcag 240
 tcctgttatg ttttgtgagt tctgtttgat agtttccagc tattcttttg gtagtgaata 300

aagagaaaat tttttatatt tacac

325

<210> 4845
<211> 371
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-H7

<400> 4845

gggtctagaat tcccgggccg acccacgcgt ccaagcttct ccaaagaaaa tcgcagagta 60
cacaattcgt acgttacagc gtactgtgcc agctgccgta cctggcattg tctttttatc 120
aggtggacag tcagaagaag aagcttccgt gaatctcaac gccatgaatc aagtggagat 180
gatcaagcct tggaaacttt cctttttctta cggacgtgct ttgcagtctt catgtctgaa 240
agcatggcaa ggaaaggcag agaatgtccg agcggcacaa gaagcctttt tagttcgtgc 300
aaaagcaaat agtgaggcta ctttgggtaa atatgccgga ggtactggga atagcgaatc 360
tttgtttgtc a 371

<210> 4846
<211> 303
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-049-Q1-E1-H8

<400> 4846

cgggtcgacc caagcgtcca atcagagtaa agaaagaagg aagatgagaa gaagagaggg 60
taggcttaga agcagcaaac cagagaggaa agcgttaaag catgaaagaa aagaaatccg 120
aaaaagaaga gaaaaaggta agaaagagga ccgaatcagg gtaagaggta gaggagcaag 180
aagagaagag agaatgctgg gtggagtagc gaaacaagag aagggaagta aaaggtaaga 240
aagaggaaag gtttacgaga gaaggaagta gaaagaagag agtgtaaggc ggcgtcataa 300
tag 303

<210> 4847
<211> 400
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-A1

<400> 4847

ggtcgacgca cgcgctccaga gctgtttcta gagtattgcg aattctccgc tttgttccag 60
aagagactgt ggttttcgct actagaagaa aagtaccttt tttagtattt gttgaagttg 120
tcgaaaccaa tatgttgtgt tgtagtcaat atgtgttttt tgaacatatg ctcatggatg 180
attatgaaga aacacatgac aatgacatcg tagcagtcac ggagagtcga cacttttccc 240
atcgttcaaa gaggactttt tcgaccgaag aaactcctcc ttcaaaggaa tcaagaagtg 300
gaagtgtaga ttcttcgacc acgccggagt agtaaacaca acgagcatgt acgaactgcg 360
gtctatggaa atgcggaatc cgctgtcgat atggatgcct 400

<210> 4848

<211> 456

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-A10

<400> 4848

attccccgggt cgacccacga cgtccacgga cgcgtggggt gcagtttccg agataagatg 60
tcggaattta acgaacttaa tgcgaaagt ttcggtgtga gttcggacag tgtagagtct 120
cagaagtcgt ttgccgatga agaaaagttg acgtttccct tagtatctga tgaaggcggg 180
aaagtacgca agctatacgg tgtaccaaag agcatgttta ttatgcctgg tcgctgcact 240
tatgtcattg gtccggatgg tattgtacga cacatctaca acagtcaagt aagtttcgca 300
taccacgtgg aagatgcaaa gaaggcgttg gtaaagatac tagacgacac gcatacagga 360
gaagagttaa cactactagac tgctttgctg cttctttgat aagaataggg ttccagtcac 420
gtgcttcggc tgggtgtggca agttactttg taagtt 456

<210> 4849

<211> 455

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-A12

<400> 4849

ttccccgggtc gacccacgac gtccagactt tgttttatca gcagcagata ctgccaacgc 60
 gcgttcgggtc atagtaatga aagacgatgt ggacaagata ttggagctgg atagtcataa 120
 gaccttagct atgggtgggg agccaggtga ctttgtgcag ttcacggagt atatacaaaa 180
 gaatcttcac ctttacgaat tccaaacggg attgcaacta agtactcacg cagttgctaa 240
 cttcatccgt ggggaattgg ctagattgat acgggaagcc cccgtattaa ccaacctact 300
 tttgggggggt tatgattctg tgtccgggcc ttcactggta tacatcgact atcttggtac 360
 tttgggaaaa ctagactata ctgctcaaag atatgcgccc tcctttatct tgggaactct 420
 cgatcgatat tatcaaaagg atattacact ggacg 455

<210> 4850
 <211> 364
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-050-Q1-E1-A5
 <400> 4850

tttttttccc tcgccgcatt tgttgtgtgt gttttggtct tatcatctca cgagcctttt 60
 gtaacgagaa gaaatggttc aaatatttgc tgaccttga aagacagcca aaaagctttt 120
 ggaagatgat tactgtttcg ataataaagt gacgttgaaa tcagcgacga gtaatggcgt 180
 gatataact tcggaaggcg ttcaagattc ctttagtggt tcagtttctg gtgaattgca 240
 aggggaatac aaacagaaag gttataatgt aacaaccaa ctgaatacct cgggcacctt 300
 cttttccgaa gttgccttgg aagaagtggg agtgaaaggt cttcgagttg tactgaacac 360
 tacg 364

<210> 4851
 <211> 446
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-050-Q1-E1-B10
 <400> 4851

attccccgggt cgacccacac gtccacaccg attgagggtt tcatcatctt atttacgcca 60
 tgagaatcct gcaaaggcca actgaaagcg cccttatagt tggtattctc tactgtttgg 120

tgtcccttgt ttttaagtga caacaggaaa ctccttcttt accttcctat acgttgacta 180
 ttgcggctga agtcttcaac gaagatgcac ctcacccgtt gagtagaaac cttccttctt 240
 ccaaagagat agaagtagca tattctttta gtgttgcaac ggatgaaaaa agtatacagc 300
 ctgagactct ggtagattgt ttagttggag tggcaaattg aggacctttt ccatatcgaa 360
 tattagcagt tgggtggagct ttgcactccc ctttgcaatt taactattat gttcacaact 420
 ttactctcct ttatgtcaac tataact 446

<210> 4852
 <211> 461
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-B7

<400> 4852
 gaccacacg tccacagaga ggaaagcgtt aaagcatgaa agaaaagaaa tccgaaaaag 60
 aagagaaaaa ggtaagaaag aggaccgaat cagggtgaaga ggtagaggag caagaagaga 120
 agagagaatg ctgggtggag tagcgaaaca agagaaggga agtaaaaggt aagaaagagg 180
 aaagggtttac gagagaagga agtagaaaga agagagtgtg aggcggcgctc ataatagaaa 240
 tccgaaagga gtagaagaaa agagagagaa gaaagaaaag aagagaaaag ccgtactgaa 300
 gaccgacaca ggtactcgag gagaaaggag acccaaatta aggtgagaga atggacgata 360
 aggaactagg caaaaggata tggatatctgc ggtagaacat atgaaagaag cagcaccgac 420
 tgtttagcaa aaacacagca ctctgcagaa aagagaaatg t 461

<210> 4853
 <211> 430
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-B9

<400> 4853
 gggtcgaccc aaacgtccag tctgttatgt actggtgaag aggatcaggc tgctcttata 60
 tgggatatta agacacgtgc tgtcgggctg acattgagtg gacaccttgg tcatgtatat 120
 tcggtaaaca ctttcaatga tggaagattg ttggcaagtg gtattggaga tcagtctgtc 180

acgttgtgaa acattcaata tggtcacgag gagaggacat tgaattgttc aggtcttcag 240
aaaggacctg gtgatggact aacttctgtt tcagtgagtc gtcgtactcc ttatcgtaat 300
gcatctggtg cattgtgatc gaactgatag tattcgatgt acagaccggt gaacttttgc 360
tcaattatcg tcaacatgca tagtcagtag attctgtagc attctctagc aatgtatgat 420
agctcttatac 430

<210> 4854
<211> 444
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-050-Q1-E1-C10
<400> 4854

ttcccgggtc gaccacacg tccagtagcg aaacaagaga aggggaagtaa aaggtaagaa 60
agaggaaagg tttacgagag aaggaagtag aaagaagaga gtgtaaggcg gcgtcataat 120
agaaatccga aaggagtaga agaaaagaga gagaagaaag aaaagaagag aaaagccgta 180
ctgaagaccg acacaggtac tcgaggagaa aggagaccca aattaagggtg agagaatgga 240
cgataaggaa ctaggcaaaa ggatatggta tctgcggtag aacatatgaa agaagcagca 300
ccgactgttt agcaaaaaca cagcactctg cagaaaagag aaaatgtaaa gtatagagtg 360
tgcggcctgc caaatagtag agaagaaatc gatgaaagtg aaagcgagta aaagatgagg 420
tatagagaat ggcggtccta acag 444

<210> 4855
<211> 420
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-050-Q1-E1-C12
<400> 4855

ttcccgggtc gaccacgac gtccagttat ttgtagtatt agctctatca tgtgtagttg 60
tgtttgccat gggatctcct atcatggaaa aacaaagatg gtatccttct acgtattcta 120
gttatccttc ctattcctat ccggtgtatc ctctctattc ttatccggtg tatccaactg 180
ttcaacctta tgtttatcct acagtgcagc catatccaac ttatagccg tattattcct 240

ccagttattc tacctataca caaaacagtg gattctactt tcccaattat tcaggacctg 300
 ttcanateta tctctgtttt tcctaaatgc cggaaccaat gatagtttcc ttttccgata 360
 atgtgttggg ttttgtttct tctttttcga taaacttgtg gtttggattt aaaataaaaa 420

<210> 4856
 <211> 427
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-050-Q1-E1-C5
 <400> 4856

ggtctaggat tcccgggtcg acccaagcgt ccactatttt gcaacaacat gaacaaaatt 60
 tctctagttt cttttctatt atttggagtt gtcatatatg cagttgcagg acctctcaaa 120
 gactctcata tagcttccaa ggtagagga tacagcagtc aatatactcc aacctagact 180
 agcgagtata ctccaagcta tagtagtgaa tagactccta gctatagcag ctcttatagt 240
 ccagtttatt cttctcctta tcaatcctca tacagtccta cctatacaac ttatcgatgg 300
 attcaacctt gtgctcaagc ttgtgcggga tgcttttatt gctatcaaca atacaatttc 360
 tattatcgct acggtcttga tctctctac tgcaagaact ttgacaaata ctgccccatct 420
 ggatatg 427

<210> 4857
 <211> 401
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-050-Q1-E1-C7
 <400> 4857

acgtccaccc acggtccgc aggcattgtt agctggaagg aacgactaga ctctgtggatt 60
 ggaaggagta gcagtgaata ttccaaagggt ggcaactctt ctccagaagg gggttcatct 120
 cctaaattgg gtagcagtc ttcgaaacta agcaaaagtc ctgcgcgtca agaagtttgg 180
 agtaaaacag tgcattcctt ggggcgttct tactcaggaa agaaacgtta tgacaccgtg 240
 gagaaggaca cagagaagga accaaatata tttgagatac atgatctgtc gaagaaacag 300
 agcgggagcc aataagaaga gagtttgtga gttttcaata gaatactgtg cttgttggtta 360

taattttcta taaatgattg tacatgctgt tttaagacaa a

401

<210> 4858

<211> 444

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-C9

<400> 4858

ccgggtcgac ccacacgtcc agttgatttt cctctgggcg ggggacgttc gtagagagac 60
cgtttttgtc gtctgtccgt ggaccgcaaa tacaagcatt caagcacctc ttatttggat 120
atcatttcta tggacaaggt agaagaacta aagtcactgg tcaattccgt ggaagaagac 180
tgcaataaat tttttgagaa cggaaacaag tcagctggag ttagagcaag aaagaacttg 240
caagaaatca aaaaacttgc tcaagaacta cgcatagaga tacaagcgac gaaacaaact 300
gaaaagtgat actttcaact gtgcagaatc aaccatggct tgtgaaacta ttccagtttt 360
tcaaataaat accttttttc gtttgaacc caaaaaaaaa acaaaaaaac aaaaaaaca 420
aaaaaaaaac acaaccacca acac 444

<210> 4859

<211> 57

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-D1

<400> 4859

ggtcgacgca cgcgtccgac cagcagtcg acgaagaaag agaaagaaaa aaactga 57

<210> 4860

<211> 457

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-D10

<400> 4860

ttcccgggtc gaccacacg tccaggcaga tccagtaaaa gtgtacgtcg gaggtctcga 60
agtggtagca tccgaagaag aagaagtgc agtagagatt catcagccga gagaggaaat 120

agcagggtcca ataacggaag tgacaatgag agtgagcgtc ctctcgcgact ttcgcgagaa 180
aatagcagaa agcgtcgggtt aattgtatatt gttgctgggtg gtgtgacggc ttctgaaatg 240
cttttggctt atgaactttc caagaactcc aatcatgatg ttattattgg tggctctgta 300
atattgacac cgaggaagtt tattgagaat ctgaacaacg tagtgcaaga ttttggaaat 360
ggtaatcaac tttctcccg c tgggttcgtcg tccgcattga gatagtttcg gatattccca 420
atctcatcga ataaagtgtg caacaacgtt tgtgttg 457

<210> 4861
<211> 282
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-D11

<400> 4861
attcccggtc gaccacgac gtccgattct gtagatacca ttatattata tctcggttga 60
taccaaaagt cataattaaa gtcgactcct ttcatatctt tttcccagtg acctagtatc 120
tggaattgct ggtccagcaa taaaaagcct cctgggttgt ttgtaaaaaa aaaaaaaaaa 180
aaaaaaaaaa aaaaaggga aaaaaacaaa aggataaaaa aaaaaataa aaatgaatgc 240
aaagtcaaaa ctcttcta atgtgcacaa aaattcaatt ca 282

<210> 4862
<211> 149
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-D7

<400> 4862
gtcccggtc gacccaaagc tccagtgaat caaacctcaa gacagcttta cccctcgctg 60
actgacacgc gatggcagta agcatgtgat tgattcagga tcaagttgac ggacacagac 120
gagaaatacc aggaattgt tcacgtcag 149

<210> 4863
<211> 433
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-D9

<400> 4863

cccgggtcga cccacacgtc caccacgcg tccgccacg cgtccgggac aagtcctcaa 60
gacgcagttt tatcaacaat tatcagctga ttcatgtcg acgaggacag ttctgactat 120
tctgaaaact tggggtaata ttaccattc ttgatatgt tcttttttga aagacttgga 180
atgatggata tatacttttt gtcggtagaa tgaaagctaa acctgtaatc tatcgagatg 240
cgatattggt tttagaagca attttgattt ttcttttttg tcaacgtagc tacatttgct 300
tcctttttga atatatgata ttgtacaagt ttgacgtta tgcagcatga gactggcaac 360
ttttgaacat cacaactctc tacgagttgt tagtaataca ccataaacca gagatgagca 420
atcttcagat tcc 433

<210> 4864

<211> 445

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-E12

<400> 4864

ttccccgggtc gaccacacg tccaggagag aataaaggta tgaatgccac cgtgttgta 60
ctggatatag aaaggaagag tgtcagtttg aagccagata catagcagaa tatcagtttg 120
gtactaaatg atgtacctc acattatatt tgcaagagag ctcaatagaa gaagcaagta 180
gcttttaact aatgttttgt gcattccttg ttatagcgac ctgagcagtt ggagaatatt 240
tatattgttg tatgcttatg tgttctttaa taacgttata ctgttatact ttatacgttc 300
gaatttataa caatgctgtg gaagatgttg tgtggaaaac gtaaactttg ctgaaataaa 360
gtcgtgtcta taccgattaa tttatgagga aactcgggga atcgtcaagt ttctaagatg 420
ttttgcggat gccttttttc agaaa 445

<210> 4865

<211> 439

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-E5

<400> 4865

ggctctagaat tcccgggtcg acccacacgt ccaggaaatg gccaaacaag aagaaaaaca 60
ctttgcatgt ttcgaaaatt tggtatatga acgacgtagt cgtcctactt tggtgatgcc 120
tctgtggaaa gctgctggat tttctttggg agctttgact gcgctcgtgg gtgagaaagc 180
tgctatggct tgtacagttg ctgtagaaga agtaatatca caagattaga acgatcaaat 240
acgtactatt catgagaaga aatggcagga tgaagaagca ttgagagaca cgttgagaga 300
gtttagagac gatgaaatgg aacatcacga cagaggaata gaatatgacg ccgagtcggt 360
tcctttttat cgcgctttga ctcgagtcac tcagttgggt tgtaaagctg ctattgagat 420
tacgcgtcga gtataaaaag 439

<210> 4866

<211> 238

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-E7

<400> 4866

cccgggttga cgcacacgtc cacggtagga cgccatattc cgtcttccgt tgttttgtac 60
gcacgctatt acatagccag ctgtcgtccg tttgctagtg tagtgaagga gatcaacaag 120
ggaagaggag cgtcgcaaac cgagcctctt gaagacgagg agggttttca aacggtcgtg 180
aagagacagt aacagagtag ttcggaatgt tccgaagact gcaggaggcc cgcgagga 238

<210> 4867

<211> 447

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-F10

<400> 4867

gggccgaccc aaacgtccgc ccacgcgtcc gctaaagttt cgagagtcct tggggaaaag 60
atcaaggctg gaagcgaaga attttcaaca agggactcat cactggtgga tgccgcttct 120
ctgttgagac caaagagatt ggcgaaaaat tttcctttga agagttcttg cagtagaatt 180
tctagagtct ttttgagaca ggacttaata aacctgtgga acgcactggg ggatgaggaa 240

aataactaacg agttgaatat tttatctgct gctagtgggt taggcaagag tatatatctt 300
 tatcttatcg ctgtttttgc ccgacacttt ggaatcccag tgcagtatat tggaaataca 360
 ggagatctgc tcagagatcg ttctcatgaa gagttagaag ctagcaacaa ctttgcagca 420
 ctgctgctgt tcatgaattt gaagatt 447

<210> 4868
 <211> 453
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-050-Q1-E1-F11
 <400> 4868

ccgggtcgac ccacgacgac caggcaaaag atggacgccg ctgtggagtt ttacgaaac 60
 tgtaaacaac atattgacaa agccttggac cgtccctatc taacttccga ctatttaaaa 120
 gactttgttc gttctattca atggacagaa cccttcatat tggggttaat atgtgctcac 180
 ttgattctgg cttttattac agtgaaaact agaaacaaga ccaacttgca aaactccatc 240
 tttttcactt cagttattac tgtattcaat gtgaagaact tgaacaagtt aggggtctgag 300
 aattggaaac aaatagctag caaaaactat ttogacgaga acggtttctt tatatttgta 360
 tttgtagctt tacccttggt gttaatttgg aactttatta tgttgcacaa tgggtatttg 420
 gctttacaaa ctatcaagga aattagacga gag 453

<210> 4869
 <211> 458
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-050-Q1-E1-F12
 <400> 4869

ttccccgggtc gacccaaacg tccaccacg cgtccgagct ctcttatgaa tgttgcggaa 60
 tgtatagaat cgagcaatgt tggttatgat ttgtccttgg ttatcgagtt ggatgccttg 120
 ttgggaacga tcatgcaatg gagagggaat gaaacattgg cacaacaatg cttggatagt 180
 ataagaagaa aggattcctt gccatgtttt catgaatcgg agtcccaaaa gaatatctgt 240

tcctgtgatt atctgctgga ctatagtatg tggatcatgtt tggagagttt tgtgggtaag 300
cagcgtagta gtagcgataa taaggaagat gtttctcttg ttacgtggat aacgaaagaa 360
gatacatcgg aatgctgtcg ctatttgttg gaaactgggt taacagcaat acaggaagaa 420
ttggaatggg aaaaaaacat tgcattagct aaagtatc 458

<210> 4870
<211> 456
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-F9

<400> 4870

cccggtcgac cccacacgtc caaaaatgtt cggactcgcg aggcaactca cctctagttc 60
tttaagatac ttttcgactg aaataagttc aaaatcgcgg tgcttacgtt gcgaaggaat 120
aggaaaaact ttggaaaagg aacaagtcca ggaactgctg aaaaaggtag aaggttggaa 180
cgtttcctct gataataagc aaatttccaa aaacttgcaa ctgcctgatt ttatgtcggc 240
tattcggttat tttcagaaaa tagctgatgt agcggaggct gaaggatcat atcccgattt 300
gcatttgact ggggtataaca aagttagaat tgatctgtca actcatgctt tgaatggctt 360
gactgagaat gactttataa tggctatgaa gattgactct cttggacaag gagcctgaaa 420
agatatcttg cgaaataaag caatagaaca atcagt 456

<210> 4871
<211> 427
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-G10

<400> 4871

ccgggtcgac ccaagcgtcc gaccacgcgt ccgcccacgc gtccggagat ttcgaaatag 60
tcactacgaa caaatatata agcagccttg aagccgaaaa gtcacatcac acaactcaaa 120
actcagtttc atctagttag ttgggaacta ttattcgaaa attggtggaa aaaatacatc 180
tcgattcttt acaacagcca tcactgggtg aagaacaaag tacatttacg agacaatcag 240
catctttaat accagagcca acatccacag gaccttctga tttgttgctg tttcctccac 300

aacaacttgg tcccaatgtg gtgcgcattc cttggaaagg atccaatggt cgaacgtag 360
 agttgcacat caatgtgggt gctgaagagg atcttcgagt ggcttcacct actgcaatat 420
 tagcccc 427

<210> 4872
 <211> 449
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-G11

<400> 4872

cccggtcgga ccacgacgt ccaattgttt tgaaaaagag aggcccatcc tcaccactac 60
 tacgagagaa gaaaccatga ctacgcagtt agaaagagga gaagaaagcg ttccacaaca 120
 ggaagaagaa aatattcccg aggacgcca agacttgcc acctatgttc aaaacttggt 180
 gtctcagatg cagagccgtt ttcaaaccat ggcagactct atactatgca gaattgacga 240
 gatgggtagt cgtatagacg aactggagaa gagcatcgat gagttgatgg aacagactgg 300
 agtaaaggaa ggcgatggaa cagagtctgg tgagggtact acgacaagtc gtggggagtg 360
 aatgcttcgg ttgtagtacg ttggatatct tccatagtag ctogtactat ctatccattt 420
 gtggttcggt cgaagaataa aagagtgcg 449

<210> 4873
 <211> 448
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-050-Q1-E1-G12

<400> 4873

cgggtcgacc caagcgcca ccacgcgctc cgccacgcg tccgagcaat aactgtgaaa 60
 atgcagtaaa ctagcagtag gacggtaaga acccataatt cttgactaaa taagtttaag 120
 gaagagagag aatcatgaag tagaggaagt ggggtaagag atgaaagacc actgcatgaa 180
 gataaggaat ctaactgagt aaggaaaata agcttaagct aatttggtg gggaagtaaa 240
 gcctaagaaa gagtaaatta tgcaagcaaa ggcagtagag aagtataata gcagaagcat 300
 gcttgaagaa aaagaaagag atttcagaaa gggaagaaaa gtcagctata gagaacaagt 360

gaaggagaac tcantaagat gagagcaccg aacgatcgaa gaagaaactt tgggggtaac 420
acgttaatgt ggtgttagag aacgtatc 448

<210> 4874
<211> 453
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-G9

<400> 4874

cccggtcgga cccacacgtc cgcccacgcg tccggttcgt tacttgatgc agagacaaat 60
ccccatttca gaactctcaa aggagcaatt gcagatcttg tacgatagaa tggaacaaga 120
actcgaacac ttgaggagca gtcttcgtac tctccatacg gcagttagcc ggttacagag 180
aagtttgcag tgttttagatt ccctttctca caaagaaaag ggttctcttg tgatgggttcc 240
tctaactagc tcgctctatg tacctggaag tttagcagat acaaagactg tccttgtcga 300
tattggaacc gggtattatg tcaaaagctc aattgacaag gcggaagatt acctcaagaa 360
gcgtttgaaa acagtaaaga cggaagtaga aaaactccaa caactagtat ccacgaaaca 420
agagcaatat gaatatgtat ccgtggctct acg 453

<210> 4875
<211> 330
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-050-Q1-E1-H10

<400> 4875

gacccaagcg tccaccacg cgtccgcca cgcgtccgcg gacgcgtggg atgtaaaata 60
gttgacaagg gtttattgca aaaagggtga atagtaactc gttctatatg gttcgttgag 120
tattgtctag agacaagtgg gacaattagt atccaccttt atcttcgcat atacataaat 180
atatattttt atttaaaaaa aaaaaaataa aaaaaaaaaa aaaaaaagaa ataaaaaaaa 240
aaaaaaaaaa aagaagaaaa aaacgggggg acgcccacaa ggttcaagct ttagatgtca 300
gtactggcga cttatgggca ctttaaaagg 330

<210> 4876
 <211> 428
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-A10

<400> 4876

aatacccggg cgcacccacg cgtcaacgga cgcgtgggag acaacgaatg aagtcagcac 60
 agccttacca aacaactagc caaggatatg aagaaggaat tcattggagt agaagaatat 120
 ttcatacaag gaatggaata ttggctctcc tgctttatca tagagataaa gtgttggttc 180
 aaaaagtcgt tggatattta ttagtattgt tgatatgttt ggagtgtatt cggttgcata 240
 gtagttggct gaatgagttg gcaagtcgct tattttatcc cattatgaga aagaacgaga 300
 ctagacgttt cagtggaatg gggtattatc ttgcgggagt cttgtatgct tcttggtatt 360
 ttgactcggg tgtttttgat ttggttggtt ttcatattggc tattggtgat cctattgctg 420
 ccattttt 428

<210> 4877
 <211> 358
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-051-Q1-E1-A11

<400> 4877

acccacgcgt cagccacgc gtccgccac gcgtccgtct cattgttggt gttattgagg 60
 aacacggagg acgacagtag cgatgggatt gtttagtaga ctgtttgtga aaccgagtcg 120
 tgtaccgcaa agagtcgtag agtttcaaaa gcgcaaggcg gaaggctact ttacatacaa 180
 cgccgggaag tacgaccgat acatcaacac acctatttac ctgtttgtgt ccttcaccgg 240
 tctttatgcc tttattgacg gttgtctttg ggcggcagga aagaaggaaa gtcaatcgtg 300
 aatagcgtnt tttgtccttg tggacagtct tatgaactag tgattcgttt gttctgcc 358

<210> 4878
 <211> 437
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-A12

<400> 4878

ggtagcgggc aggaattccc gggccgaccc acgcgtcagc cttttcggag gtaatatgtc 60
gtacaacgaa ctggtaaagt ggcagcattc acaaaggaga aagcagcaag ttgattagag 120
catctataca tatatatcgt taccgacagg gatcgggaga gagagaaatt ttacagtctg 180
tgcatTTTTTc ggtgaacaaa tgtggatatt ttcgtttcca ttcttcaagt tgtcgacatc 240
gccatctatc cgagttgtaa aacagagacg gatcgaaata acggtatcct gcaatccatt 300
ctggagggtat acgttggaga caaagctgcc gcatttcatt gactcggaac actttacctc 360
tcacctgtcg agattcatta gaaattcttc ccaacccatc ataccacaat aattttcgtt 420
ccagattgtc caacgag 437

<210> 4879

<211> 443

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-A3

<400> 4879

ccggctcgac ccacgcgtac gggactataa ttatttggga ttgtgttgcg gtggccaatt 60
atgagaatac gtcgtttgaa cgaacaagga gaagaagaag acaaagaaga cgaacaagaa 120
gaaatgcaaa gtgaagagtt gacaaggagt tggtcggaat ttcttctttc gtattcttcc 180
gaaatggtag actgtataac ctcatcgagc gatgacgacg aagagaaaga gtcgttcgtg 240
gcttctcgac ttggacaaaa actgggaaag atgctggaaa gttatgcctc gcattgtagt 300
ggaaaaaata agactttgtt gtttcgtcat gttccggacg acacaccaac gaagcattgg 360
cttatcgaca agttcaagtt tacaacgaga aacttacggg ttaccttgtc acctggagtc 420
cgtcgaagaa ggaagaataa gag 443

<210> 4880

<211> 423

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-051-Q1-E1-A9

<400> 4880

gtaccggtca gcaattcncg ggctgacca cgcgtcagcg gacgcgtggg cgcggaacata 60
gaatggcaac agataaagtc agctaagaag atatactctt atgtaaaaga atcaaaaact 120
aaagaatatt tggagctaga cgattcgttg cagcagccag tggattcatc ttgtagcacc 180
aagtggctgt ttattgcaac cccactgttg gaagttgett gtactgatgg gcagcgaatt 240
gaaatgattc ctttgaagaa agatataaag gaattgtttt tctctacttt aaagaagaac 300
tttgagtcga acgaagcgtc atgggagtg cagtgtagttg aaaccgcagt tgctgttttt 360
atccagtatt atgaacagtg tgtggaacag tactatctag caagcacaga ttatgagcta 420
cct 423

<210> 4881

<211> 396

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-051-Q1-E1-B1

<400> 4881

aattcccggc tcgaccacg cgtacgcca cgcgtccgcg atttgggaaa ttgcaaatag 60
gccaaagtgt gttgtttag tgtacgaggg ttggtcattt gttgagctga agagtcaatg 120
aacaagcttc agttgctata cgtaaccaa caagctgttt caaaagcatg gcaaagagaa 180
cagaaaagg tatactccga gaagaaatca gttgcagaag gaactttggg aagcaggtgg 240
aaggaaagag aaactgcaca agagagcgcg tactttaatc gtgaagatga gcaggcagta 300
caaaggttag cagcgaaact tcggcagcaa attgagccat cggaggaagt actcgcccaa 360
caaagaaaag gcgtggcaga natcttataa aaacac 396

<210> 4882

<211> 370

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-051-Q1-E1-B11

<400> 4882

acccacgctg cagcccacgc gtccgcccac gcgtccgttc cgattccggc aaaggaggag 60
 ccttttccaa actaggcata gtatggatag aggatangag agagggatgg gtatcgagtt 120
 ggggatcgta gtagatggca aatgtgtgtg gagtattgtt ttatcacgat aaacactgtc 180
 ttcactaaaa aaaaaaaaca aaaaataaat caaaagaaat aaaaaaaaaa acaaaaaaaaaa 240
 aaaaaacaaa aaaaaaataa aatgaaaaaa acaaaaaaaaaa cattcaaaat taaaagaaaa 300
 aaaaaaaggg gggcccccca aaaggattca accttactta cccgtgcatg caaattcaaa 360
 gccctccaaa 370

<210> 4883
 <211> 373
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E1-B12
 <400> 4883

taccggtcac gaattaccgg gctgaccac gcgtcaacc acgcgtccgc ccacgcgtcc 60
 ggaagtaaat agacgtttga aaggcgcca gtatgaaagg agaaacgagt gtagcactgt 120
 ctagtcgtcc aactcagcga aacagcaata actgtgaaaa tgcattaaac taccattagg 180
 acggaaaaac ccataatcc tggacaaaat aggttaagga aggaaaaaa accataaatt 240
 aaagaagttg gggtaaaaaa taaagaacaa tgccataaga ataaggaatc taactgatta 300
 aggaaaataa gcttaaccta gtttggtctg ggaattaaag cctaagaagg agtaaattag 360
 gcaaccaaag gca 373

<210> 4884
 <211> 376
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E1-C1
 <400> 4884

ggtaccggtt aggaattccc tgctcgacc acgcgtacgt tttttttttt taacacaact 60
 attctttatt ttcgcaaac ttgtgccttc actcgaaaaa tgtgtcttcc tttgcaaaaa 120
 tcggcatact tttgcgtcga taataatgcg caaacgaaag actagcggca agagctaaaa 180

caggggcacc aacagtcagt gatggacaaa cctcaagtgg atcattccac gttggtaaag 240
 atagacttgt ctcaaggcag ctttaatgta ctccaagact gtgacaaaga tttagaatgt 300
 gatcataatg ccaagtttca gttggaactt atgcagtacg gtctcttttc acctggctgt 360
 cggacgatag aaaatg 376

<210> 4885
 <211> 207
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-051-Q1-E1-C10
 <400> 4885

ggtcaggaat tcccgggccg acccacgcgt cagggctccc gacgtctttt ccttggatgc 60
 agatagcana gtgactagaa atactacgac ggaagaaacg gaaacacatc ctttgcaagt 120
 gcctcgtagg gaacctanag gaaaggtaag anagagagct ctatggtgag gtttaataaa 180
 tagcatagca cctacaaaac gatgttg 207

<210> 4886
 <211> 294
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E1-C11
 <400> 4886

accacgcgt cagagagaat aaggagagga tagaaagaat gtcgggctgg tttgttttgt 60
 acactttcgt tgtattttta caatatgtaa acaaaacctg tacgttttgt agatataact 120
 ggttatgact caatgttagt catagctgag tgaaaatata tttaaaacta caacattttt 180
 gttcttgttt aaaatagagt caaaacaata aaagtggccg tgtactcact tgcctccaca 240
 tatctacaac taaaacaagc ctctcgctct cacacgcac cctatgaaaa aggg 294

<210> 4887
 <211> 197
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-C12

<400> 4887

taccggtcag gaattcccg gccgaccac gcgtcagggc attaaagttg gtaggcaacg 60
atggatatgt tctaacagaa gctggttttg gtgcagacat tggtttggag aaattcgtga 120
atattaagtg ccgtgcttct ggtttagttc ccaattgtgc tgttattgtg gctacaattc 180
gagctttgaa aatgcat 197

<210> 4888

<211> 108

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-C8

<400> 4888

ggtacggtat ggaattcccg gctcgacca cgcgtagcga gaataataat ttgcacgcaa 60
ggcgcgcgga ctcgaccgtg ttgggtgtaa ttgtggtctc agtaacgt 108

<210> 4889

<211> 346

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-D12

<400> 4889

ggtaccggtc aggaattccc gggccgaccc acgcgtcagc ccacgcgtcc gccacgcgt 60
ccgcccacgc gtccgcccac gcgtccgccc acgcgtccgc ccacgcgtcc gccacgcgt 120
ccgcccacgc gtccgcttgc atttggtgaa aagacaaaga acttggttat tctcatattc 180
ggtttagtag gtatgctgat cggaacttat gtttccatta tggaaatgca gaaaaatccg 240
gagtattgaa ttgatatggc attgttctcc tctttctctt gttgtacaag ttacaacaa 300
aaagcccggc tttgggtttt atacttttca tgtaaatttt cctttc 346

<210> 4890

<211> 66

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-D2

<400> 4890

tgcctggtcc aacttttcgg ttctatcctc acactctgta cagggctcgac ccgtgctgg 60
aaagcc 66

<210> 4891

<211> 237

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-D6

<400> 4891

cgaccacgc gtacgccac gcgtccgctt tttttattg aaacacaaga ctttacgagt 60
agtgaatagg cgttttactt gttttgttta tagagttgaa cgaaactttg aaagattccg 120
tagcttgta tgtctgttat ttgtcacct cggagcttga cagagagttt cttgggttga 180
ctccaaatag taagcttaag agactgtttt gtcacactcc agcatggtgg gatccct 237

<210> 4892

<211> 399

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-E10

<400> 4892

gggccgacc acgcgtcagc gatctttggc tttatcgctg agtcctgaat acgagcatat 60
tccagaagaa gaacgaaaaa aggttttggc caaggttcaa gaggcagaaa attggctgtc 120
tcaacaaatt cccatatttg agaaactgca aaaacatgaa gattgtccag ttagtgtagc 180
acaaattcgt cagaagagta aggcagttga acagttttgt caaccgatta tgaatcgtcc 240
caaacctgct cccctaaga agaacaagga ggaagagtca gcttcttcta ccaccaacaa 300
ggataatagt acgacaacaa cccaaaaaga ggattcttct gagcagatgc agacagaaac 360
agaggacgac aagagtgcgg aaaacaaaga ttccccaat 399

<210> 4893

<211> 415

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-E12

<400> 4893

taccggtcag gaattcccgg gccgaccac gcgtcagccc acgcgtccgc gcagcgattc 60
catgttgaaa gagggtagac gtatatgtc cgatctcaag tttcagggtc ttcaagatgg 120
aaaacctcag gtgataactt cggatcaagt attcggagga aagaaagtag tattgtttgg 180
gttacctggt gcctttactc caacctgctc taggcagcac cttccaggct ttggacagaa 240
ggttgatgaa atcaaatcga aaggagtaga tacagtcgct tgtttagctg tcaatgaccc 300
ttttgtatta catcagtggg cagagtcaca gggagtggca ggaaaaattc tcatgttagc 360
agatggtggt gcgcaatctg tcaagaaact tggactggat atcgatactg gtgac 415

<210> 4894

<211> 314

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-E3

<400> 4894

cacgcgtaag ctacaagcaa tttccatctt tttccctcag tcattcttac atttcagtag 60
atgtacaaga tttttttcaa tgtcaaaaaa tattgcacaa tccaccatc gaagcacgaa 120
aaaaaaagcc tttcgactct ttctttctat acttttgcaa tgagaagaaa atgatacata 180
gaatcatcgg caacggattg gatgctggtt tagaggcggt caaccatagt ccaacaaacg 240
tagcgtcgta ccatggccta tcggccatat gaaagaccag aggtttgact ccagcagttc 300
catcgcgtac ttg 314

<210> 4895

<211> 381

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-E6

<400> 4895

ggtaacggtt aggaattccc ggccttgctt atcgacaacc atcgagctc gtgattcatc 60

tgctgctgct tcttgaagaa gagattgctt cgacgcaaga tgtccaacaa catcaacgcc 120
 tttatcaatc cactcttctc ttgtcacaag gtatcctttc aagacgcaa gaaaagtatt 180
 tgttggcaga agaagaaatc caggccagtc aaccggaata gtctcggttat ccagtcgggtt 240
 gcctctccac cagtcaaagc aaacaaactc tttcaaatat cttgtgcact gacctcggca 300
 tttgcatatt catcccattg ccttgctaca gaaggcactg gagaaccttt ggggtgctgat 360
 gacctcctg tgttggctgt g 381

<210> 4896
 <211> 337
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E1-F11
 <400> 4896

gtctgtaatt ctcacgtgcy gttacaaacg attttgcatt tctttgttgg tgtgcattcc 60
 atcgcaaaaa ggtatgtgta gagtcatoga agtctccatc taagacaaac tcgggagcct 120
 ctctatcgtc taatagtcgt ttttgcgaca ggactagaca tccgtgcact caggattcag 180
 ccactaattt taactatcag gaacacgctg gttcacacca catagtagtt gagagtgtgt 240
 cttcaactag ggtttgcctt gattgtcgta tagctagatt gacgacttca catagtttct 300
 tgtcctcaat atgtattttt gatacacggtt acatata 337

<210> 4897
 <211> 364
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E1-F3
 <400> 4897

gaatgcatgc gcttattgtc tatgatgact tgtcaaaaca agcagttgcc taccgtcaaa 60
 tgtctttgtt gcttagacga ccaccaggac gtgaagccta tcttgagat gtcttttact 120
 tgcactctcg tctgttggaag agagctgcca aaatgtcaga tgctcacggt gctggttctt 180
 tgaccgcttt gcctattatt gaaacccaag ctggagatgt gtctgcctat attccaacga 240
 atgtgattag tataaccgat ggacaaatct ttttgagtc agaactgttt tataaaggcc 300

agagacctgc catcaatggt ggactttctg tttccagagt tggttctgca gctcaaccga 360
aatg 364

<210> 4898
<211> 369
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-F5

<400> 4898

ggtcaggaat tcccggctcg acccacgcgt acgcggcatt cgacgacgcc ttcgagctgg 60
agcagcggtg agtaatttct gaaacacaaa tatgcgtgcc aagtggaaaa agaagagaac 120
acgacgggtg aagcgcaaga gaagaaagat gagacagcgt tccaagtaac ggaagaatcc 180
tcggacgtct gagttgaata gagttcctaa aacgtgggaa aactctatctt gcaactctgg 240
cgcagtgatt atatcctgct acggaagggtt ggaagtgttt ccgaggattg ttcgcaagtt 300
atgataaaag gttcttgtgg tttttgtttt caacttgtaa atgccacttg tcagtcattt 360
tattcgagt 369

<210> 4899
<211> 362
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-F6

<400> 4899

cgacccacgc gtacgcgaaa agagtagcga aacaagagaa gggaagtaaa aggtaagaaa 60
gaggaaaggt ttacgagaga aggaagtaga aagaagagag tgtaaggcgg cgtcataata 120
gaaatccgaa aggagtagaa gaaaagagag agaagaaaga aaagaagaga aaagccgtac 180
tgaagaccga cacaggfact cgaggagaaa ggagacccaa attaaggtga gagaatggac 240
gataaggaac taggcaaaaag gatatggtat ctgcggtaga acatatgaaa gaagcagcac 300
cgactgttta gcaaaaacac agcactctgc agaaaagaga aaatgtacag taaagagtgt 360
gc 362

<210> 4900

<211> 350
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-051-Q1-E1-G10

 <400> 4900

 ccacgcgtca gcggaagcgt gggcggacgc gtggggaaat aaagaaactg cacaagagag 60
 cgcgtacttt aatcgtgaag atgagcaggc agtacaaagg ttagcagcga aacttcggca 120
 gcaaattgag ccatcggagg aagtactcgc ccaacaaaga aaaggcgtgg cagaaatctt 180
 acaaaaacac ggtgtccagc ctaatcaaag ttgtattgaa gatattgtcc gtttctttca 240
 ataatccctc cgtgtttgat gtttagctgc ggttcaacta gagttttgtt tgggaacacg 300
 ttggatccag taaagaacaa aagaacttct ttgtaaaaaa acaaacaaaa 350

<210> 4901
 <211> 454
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-051-Q1-E1-G11

 <400> 4901

 gtctagaatt accgggccga cgcacgcgtc caccacgcg tccgctttgg gaacattggt 60
 attggttggt gaaagtttat agaaaatgac aaaaggaact tcgagttttg gtaagagaaa 120
 taacaaaact cacgttttat gtatacgtc tgggcgaagg gcgtaccatc tacagaagaa 180
 gcgttggtgt tcttggtggg acccatctgc taaaaagaga aaattcaact ggtcggaaaa 240
 gtcgaaaaga aggcgaacga caggcactgg tcgaatgcgg tatttgagac acctaccgcg 300
 acgattcaaa aatggtttta gagaagggtg caaggcttct tctaaacgtc ctgctccagc 360
 accttcagca gtataataat tgacaacttt tgtcaaaata taaactcgcg ccaggttcaa 420
 acagatgaga caataaagcc tttcccttgg gttc 454

<210> 4902
 <211> 421
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-051-Q1-E1-G6

<400> 4902

cggctcgacc cacgcgtacg gtgtgctttg ctgggtcaagc cattccaagg actcgccaag 60

cctttgcaga aatacactgc tctccgcaag tggtttggag tgtataaata tgattgtcac 120

agaaagaacc tcctttcgac atgcctctcc cgagttaata gaaggatggt tactaaagga 180

agggaagctt tttagaacca aagacaagag atatctgca atagccaacg gcaccctttc 240

caaccacaaa gcggagaatg aaccagcaac ttgggatttg gatctaacag agtgtaaagt 300

gagagaaggt cccagaaaat atgaaatacg cctcgagcta cctaacagag tcgtttcctt 360

ttttgcagac gaatgacgag accacactag atgggttacg ggttttttaa cgagcaggtt 420

t 421

<210> 4903

<211> 378

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-G8

<400> 4903

ggtaccgggtt aggaattccc tgctcgaccc acgcgtacga atgcaccagc tcatgtggag 60

aatgtcgttg aacctagcaa ccacttttct tatccaagtt tctatccaga gaatatgcc 120

tttcccacag gatatactcc tcctcctatg acttcaggag tatggccata tccgtatttt 180

ccatttccgt atttcggaca atcctttgca cctataaata atgactatag caccaacaat 240

aatattccct ggaaagattc atctgtcgtc agtgcacga aaccaaactt ggtggagaaa 300

ccgaaagtca atgaaagttc tatgaagaga aagcatcatg gatgagagga tgataggacc 360

gggcgttctt catcctcg 378

<210> 4904

<211> 416

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-G9

<400> 4904

ggtcaggaat taccgggccc acccacgcgt caggttgggg gtggttcgtg gatgaccttt 60

ctactcatac ttgcctttgt tgcgggttat tttttgggcg aacgaggcaa aaagaagaaa 120
 agtccgaaat atagttgggt accgcctacc ttaaaccacc tttcagagtt tccagcgaat 180
 tcgaacaaca gtcgtgttac agttagaact tgtaaagaag agtgtaaatt ggtactttgt 240
 gttcgttccg atttgaagat gggaaagggt aaaatagctg cacagtgtgg acacgcaaca 300
 ctcggtgcct atcaagatac acttcggacc aaccctgggt atttatggaa gtgggaagca 360
 gatggtcagc caaagattgc actttcagta tcttctcttc aagaaatgaa aaattt 416

<210> 4905
 <211> 289
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-H11

<400> 4905

cacgcgtcag gtcgtatcca gtcgcttgaa ctcgtatggt tgaacctact gaaagtcaat 60
 ctcacgcaaa gttggatcgt atttgtgata ccgtgttgag tagaatagaa tatcttcggg 120
 atactgacaa taggaagatg gagatcgaaa ggaaaccgat caagtcgcta ccacagattg 180
 caaatgtgga atcaacagag taattgggtc catccctcat cacgtctctc ggctgcatac 240
 cgagcaattg ggttccacac tataaaaatc cggcccaccg taacgtaga 289

<210> 4906
 <211> 286
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E1-H2

<400> 4906

tcaggaatta cggggtcgag ccacgcgtcc gattgaaaat catggtagac accaatctta 60
 atgacggtgc tagtgctgct ctttggactt gccgccagc tctctagaca attgtgtcag 120
 cattttcagc aacaataatt ggacctgatg gaacgaaagc agataacata tggaacgatg 180
 ccctatatta tcatggaaaa gtggtgaact tttgtgcaga ttcggcgta tcagtttttg 240
 aaagtggcga tcatggagca tgtcaacatg tgatggcatt tgcttc 286

<210> 4907

<211> 293
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-051-Q1-E1-H5

 <400> 4907

 cccacgcgtc cgtgtgtgtt tgtgaaatta aaagcttgcc gtgttaaaaa aaaaaaaaaa 60
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aagaaccaca aaaaaacaaa 120
 aaaagggcag ccgcccacga ggatccaacc ttcgatccgc ttgcaagcga agtccggggc 180
 ctcccagtgt gtcccctaac ttcgtttaac tggccgtctt tttccaacct cttgactgga 240
 aaatccctgc cgtcagccaa tttagccacg ttgcccgaca tcccccttcc ccc 293

<210> 4908
 <211> 356
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-051-Q1-E1-H6

 <400> 4908

 aattcccggc tcgaccacg cgtacgtagc tccaaggtag acgaaagggt tgctcagctc 60
 tgttccccag ggagaagcca agtatattac acagagaata gggtattact tgtttgtttt 120
 acaagtgaac cgagaaaggg tctcttctag gagtatgcgc atagatggac ttggtgggta 180
 cctcaaaact gaaaggcgaa aacggcagaa atcccagggt agacggtaac aaccttccaa 240
 tagaaacatc ggaaagagat gaagagacta cagaagaagt tgtttcttca ttctgggact 300
 ggcacatttt ccgtagaatc ttaaacttgg gaagttgact gttacggtcg catgtg 356

<210> 4909
 <211> 421
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-051-Q1-E2-A12

 <400> 4909

 aattaccggc tcgagccacg cgtcagcctt atcggaggta atatgtcgta caacgaactg 60
 gtaaagtggc agcattcaca aaggagaaag cagcaagttg attagagcat ctatacatat 120

ataatcggttac cgacagggat cgggagagag agaaatttta cagtctgtgc atttttcgggt 180
 gaacaaatgt ggatattttc gtttccattc ttcaagttgt cgacatcgcc atctatccga 240
 gttgtaaaac agagacggat cgaaataacg gtatcctgca atccattctg gaggtatacg 300
 ttggagacaa agctgccgca tttcattgac tcggaacact ttacctctca cctgtcgaga 360
 ttcattagaa attcttccca acccatcata ccacaataat tttcgttcca gattgtccaa 420
 c 421

<210> 4910
 <211> 189
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E2-A3
 <400> 4910

acgccgccag tacggtcagg aattcacggg tcgagcgcac gcgtcaggca aaaaacctca 60
 catggagtta tgactcgttt gttactgcag tctggagcag gaattattcc ttcaaacattt 120
 ttcgtagtaa ttgtgttttg gtgtagtttt ttttgttata ataagaataa agaaagtcca 180
 gagttgttg 189

<210> 4911
 <211> 450
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E2-A6
 <400> 4911

acgcgtccag gtaccggtca ggaattcccg ggccgaccca cgcgtcagcc caagcatccg 60
 tccacgcgtc cgcgcatgcg tccgcacacg cgcccgaca caatatatca aaagttttag 120
 attggatgaa tgctgatgaa atgttatcga gaggctttta agaacatatt tatgaggttt 180
 tccaatatag gcctgcacac tgtcaaattg gacttttctc cgccattatg ctgcaagatg 240
 tacgagaaat gacggagaag tttatgagag atccagttgt gattttggtg aagaaagatg 300
 aacttacact ggaacgtatc acacaatact atataccact ggaaatcgac gagtacaagt 360
 ttgatacttt acgtgacctc tacgaaactt tgactgttac gcaggctata acttacgtga 420

ctacacggag gaaagttgac tggctcacac

450

<210> 4912

<211> 377

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-A8

<400> 4912

cccgggccga cccacgcgtc aggaggtgta tgatgcaagc aaagaagtga cgcagtagat 60

cagagagtaa cacatgcaag taggtaaagc gaacgggtga gtaaagaggt gtgaaagagt 120

ggaagagcat gaaagcacag aagaatgtaa gaaatggtag agtaaaaacc atacaggaag 180

taaaagcggg aatctgagag gaggaaagcc acattgggac tgagaaaagg tccatacaag 240

agaagtcagc agtggggaaa attgggcaat gtacaggga gtatgaccca gtaatgagga 300

gtggaataaa cagaagagga agtaagagga gggaatgaag ggaagttatg gcaaaaacac 360

ctgccagcag cagcgggt 377

<210> 4913

<211> 128

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-B1

<400> 4913

ggtcaggaat accgggtcga gccacgcgtc cgcccacgcg tccgaatggg catagatgtc 60

atggcaacca aggaaggttt catacaacac agtcactcta caaaagacag cctccaattg 120

caactttg 128

<210> 4914

<211> 356

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-B10

<400> 4914

gccacgcgtc agcccaagcg tccgtctcag cccaagtagt agaagaatat gttggcggtt 60

acatgtctca cagactgtcg ttggttagag acttctcgat tctccagatg tgcgaaagcc 120
 aatgaggtct cgttgcgacg tagttcccag tgtgcacact cttggaggag tgtttcgatg 180
 aagtagagtc cctattcgat aactaccgac acatcagaag gacatattgt tcccgtact 240
 ttttcaagat ttgagtttct tgactgtcga gtcaacggtc caaccgtctt gaagcctagc 300
 atacttgact ttacagtgtc gaatgtatca gatgctgcct ttggagaatg gagagc 356

<210> 4915
 <211> 369
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-B2

<400> 4915

ggtcaggaat accggggccga gccacgcgtc cgcccaagcg tccgcccacg cgtccgatac 60
 gggaaagcag taaaagaaga aagagaaagg aaaaaactga gtatcaggaa gaaaagaggg 120
 agtagatgag gaaagaaaga tcaaggaagt aagagtaaga gaaggagtaa tgtgaatgaa 180
 agcaggaaaag tatttgaaga agagagtgtg aagcgcgtac cttttgcata atgtcccagc 240
 gagtgaaaga ggaagcaaaa agaaagaaaa agaagtagcc aggtaagacc cgaagctagt 300
 tgatcttatg ctgtccaagc caagtaaggc gtaaccagta tccgtggaaa aagatctgga 360
 agagatggc 369

<210> 4916
 <211> 110
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-B8

<400> 4916

gaagtcccg gcagaccac acgtcagtag tcaattgta acacaactag tcttaattat 60
 cgcaagacct gtgccttcag acgaaagatg tgtcttcctt tgcaaaaatc 110

<210> 4917
 <211> 401
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-C12

<400> 4917

cgcgctcaggg caataaagtt ggtaggcaac gatggatatg ttctaacaga agctgggtttt 60
ggtgcagaca ttggtttgga gaaattcgtg aatattaagt gccgtgcttc tggtttagtt 120
cccaattgtg ctgttattgt ggctacaagt cgagctttga aaatgcatgg cggtggtcct 180
caagtatctg ctgggacacc acttcctcat gaatacactc aagaaaattt gcaactggta 240
gaaaatggaa tgtgcaactt aagaagacat attgccaata cgagagcttt tggatacct 300
gtggtttagt ctttgaacaa gttccagtac gatgcagacc cagaaatata gtcgtaata 360
cacatatgta aggaagcacg tgcctttgat gcagttttgg c 401

<210> 4918

<211> 315

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-D6

<400> 4918

ggtatcggtc aggaagtccg ggccgaccca caggtcaggc caagcatcag cttttattta 60
gagatccact agtatttacg agtgatgcag tagcatctca ctagtatatg cctacacagc 120
gtttgtgaac tgaggagaag tatgtgagaa aagacgagag atatctgcat gcaagaggag 180
atcaaatttc ctgtaatgga atatcattga gggtgagaat cccgtttacc tcttttcctt 240
gtatggagac tgcgttacga aatgtcctgt tctgtagtct ggttgtttgg tagtacagcc 300
ttaattttgt ggggtg 315

<210> 4919

<211> 402

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-E12

<400> 4919

cacgcgtcag cccaagcgtc cgcgacgcga ttccatgttg aaagagggtg cacgtatatt 60
gtccgatctc aagtttcagg tgcttcaaga tggaaaacct caggtgataa ctccggatca 120

agtattcgga ggaaagaaag tagtattgtt tgggttacct ggtgccttta ctccaacctg 180
 ctctaggcag caccttcag gctttggaca gaaggttgat gaaatcaa at cgaaaggagt 240
 agatacagtc gcttgttttag ctgtcaatga cccttttgta ttacatcagt gggcagagtc 300
 acagggagtg gcaggaaaaa ttctcatgtt agcagatggt ggtgcgcaat ctgtcaagaa 360
 acttgactg gatatcgata ctggtgactt tgggtgtatt cg 402

<210> 4920
 <211> 231
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E2-E6
 <400> 4920

ccgggccgac ccacacgtca gcccacgcgt ccgcgcagcg attccatgtt caaagacggt 60
 acacgtatag tgtccgatct caagtttcag gtgcttcacg atggaaaacc tcacgtgata 120
 acttcggatg aggtatgcgg aggaaagaaa gtaggggtgt ttgcgttacc tgggtgccttt 180
 actccaacct gcgtcaggca gcaccttcca cgctttcggc agaaggttga t 231

<210> 4921
 <211> 444
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E2-E7
 <400> 4921

aattcccggg ccgacccacg cgtcagccca cgcgtccgcc cagcgtccg ggaagcagaa 60
 gtattcgtag caaagttggg tagctgggag acagtcacat aactgttcta tcagacagtg 120
 aaatgctttc ctaatcaagt gggaaactac caattacttg ttcagcacga gtgaggataa 180
 cttgaacaaa tcctcatatg gaatgtgaca caacgtatct caactaagaa acaatgtgaa 240
 atatatccaa caacgtcact ttttattatt gagacaaact tgatggcgga gcacaaaaca 300
 accacaaaac tattgcttct gcattctata tcctcgcagt tgaaatagaa attcgaagcc 360
 tatttgagga gtggccagtt gaagtcacat gttgaagaaa ccctttctct gtcaaaccga 420
 aaaacgcccc atatatgttg tttt 444

<210> 4922
 <211> 406
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-F10

<400> 4922

acgcgtcagg aaacgctgta cgcaaaaaat tgaacaacac tacagatagc gatattgcgt 60
 ctgatatgac tggacatata tctgatagta ttgtttatca ctcaggagga gatgtctctt 120
 ctgatcaaaa ttccgtgggt tctcgagaag atagtatacc ggagagttac cactcaactc 180
 gtcgtcgtga ttatattgat tggaatactt tgaaaaatca ctttcacctt ccgatgaatg 240
 aagcttcagc caaactgggt gtatgtgtga cggtattgaa gaaaatatgt cgtcgttttcg 300
 gaatatcgcg atggccacac cgcaaatga aatctgtagc tagacacatt gaaagacaag 360
 aacgagcttt ttctgtagca ccaggggtag aaaacctgtc ttatga 406

<210> 4923
 <211> 176
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-F11

<400> 4923

gtctgtaatt ttcacgtgcg gttacaaacg attttgcata tctttgttgg ttgcattcca 60
 tcgcaaaaat gcattaataa agtcatccaa ttctccatct aagacaaact cgggagactc 120
 tctatggtct aatagtcgtt tatgcgacag gactagacat ccttgactc aggatt 176

<210> 4924
 <211> 408
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-F3

<400> 4924

ggtctagaat atccgggtcg gccacgcgt caggaatgca tgcgcttatt gtctatgatg 60
 acttgtaaaa acaagcagtt gcctaccgtc aaatgtcttt gttgcttaga cgaccaccag 120

gacgtgaagc ctatcctgga gatgtctttt acttgcactc tcgtctgttg gaaagagctg 180
 ccaaaatgtc agatgctcac ggtgctgggt ctttgaccgc tttgcctatt attgaaaccc 240
 aagctggaga tgtgtctgcc tatattccaa cgaatgtgat tagtataacc gatggacaaa 300
 tcttttttga gtcagaactg ttttataaag gccagagacc tgccatcaat gttggacttt 360
 ctgtttccag agttgggttct gcagctcaac cgaaatgttt gaagcaag 408

<210> 4925
 <211> 385
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E2-F4
 <400> 4925

cgcgctcagga ttgcatgcgc ctagtgtcta tgatgacttg tcaagacacg cagttggcta 60
 ccgtcaaattg tctttgttgc ttagacgacc accaggacgt gaagcctatc ctggagatgt 120
 cttttacgtg cactctcgtc tgttggaaag agctgccaaa atgtcagatg ctcacgggtgc 180
 tggttctttg accgctttgc ctattattga aaccaagct ggagatgtgt ctgcctatat 240
 tccaacgaat gtgattagta taaccgatgg acaaattctt ttggagtcag aactgtttta 300
 taaaggccag agacctgcca tcaatgttgg actttctgtt tccagagttg gttctgcagc 360
 tcaaccgaaa tgtatgaagc aagtc 385

<210> 4926
 <211> 393
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-051-Q1-E2-F5
 <400> 4926

aggtacacgg tcaggaattc ccgggccgac ccacgcgtca gcggcattcg acgacgcctt 60
 cgagctggag cagcggttgag taatttctga aacacaaata tgcgtgccaa gtggaaaaag 120
 aagagaacac gacgggttgaa gcgcaagaga agaaagatga gacagcggtc caagtaacgg 180
 aagaatcctc ggacgtctga gttgaataga gttcctaaaa cgtgggaaaa ctctatttgc 240
 aactctggcg cagtgattat atcctgctac ggaaggttgg aagtgtttcc gaggattgtt 300

cgcaagttat gataaaaggt tcttgtggtt tttgttttca acttgtaa at gccacttgtc 360
agtcatttta ttcgagtaaa aaaaaaaga aaa 393

<210> 4927
<211> 418
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-G1

<400> 4927

ggtcaggaat taccgggtcg agccacgcgt ccgcccaagc gtccgaaaaa tgttcgtgtc 60
ttactccgta cctgcaagaa acttaccggc tttggcacgt aactttttcca atgtctgtct 120
ctcgaggagt ggtctgagag ggggatgttt acgaaatgtg aaagttttca accacaaacg 180
acctgcaagg ttgttatcta cgaaaatgag aggaggcgac catgaaagga gagaacttag 240
tcgtcctatg cgtacgcttg attccgcttt cgacgaactt ttagcttttg cgcaggatcc 300
ctgggccatg tttcgctctc catggagtct gtcgcccaga agtatggcag tagacacgtg 360
gatgcctcgt gttgacttgg tggagaagga agatggcttt tatgcatacg tggaacta 418

<210> 4928
<211> 403
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-G11

<400> 4928

cacgcgtcag cccaagcgtc cgcttttggga acattgttat tggttggtga aagtttatag 60
aaaatgacaa aaggaacttc gagttttggt aagagaagta acaaaaactca cgttttatgt 120
atagctgtg ggcgaagggc gtaccatcta cagaagaagc gttgtgcttc ttgtgggtac 180
ccatctgcta aaaagagaaa attcaactgg tcggaaaagt cgaaaagaat gcgaacgaca 240
ggcactggtc gaatgcggta tttgagacac ctaccgcgac gattcaaaaa tggttttaga 300
gaatgtgtca aggcttcttc taaacgtcct gtcacgac cttcagcagt ataataattg 360
acaacttttg tcaaaatata aactcgcgcc cagtccaaac aga 403

<210> 4929

<211> 390
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-051-Q1-E2-G5

 <400> 4929

 attccccgggc tgacccacgc gtcagcggac gcgtgggatg ttaatgttgc agtatacgag 60
 agagaagagt gtaagggtag aggaaatgaa tataatggaa ggagaatggt aatgtatgga 120
 gtaataggag taatgataat gatgacgtta agagggaagg gagtaatggg agtacatgta 180
 ggaatgtcat ggtagggat aagtagtgta ataataatgg gaataatggg aatgataaat 240
 gtggtaagta cgtcatataa aagcatggag tatatggaaa ggtttacgag agaaggaagt 300
 agaaagaaga gagtgtgaagg cggcgtcata atagaaatcc gaaaggagta gaacacaaga 360
 gagagaagac cgaaaagaag agaaaagccg 390

<210> 4930
 <211> 405
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-051-Q1-E2-G8

 <400> 4930

 attccggggcc gacccacgcg tcagaatgca ccagctcatg tggagaatgt cgttgaacct 60
 agcaaccact tttcttatcc aagtttctat ccagagaata tgccatttcc cacaggatat 120
 cctctcctc ctatgacttc aggagtatgg ccatatccgt attttccatt tccgtatttc 180
 ggacaatcct ttgcgcctat aaataatgac tatagcacca acaataatat tccctggaaa 240
 gattcatctg tcgtcagtgc atcgaaacca aacttggtgg agaaaccgaa agtcaatgaa 300
 agttctatga agagaaagca tcatggagga gaggatgata ggacggcgcg ttcttcatct 360
 ccggaacaaa ccgctgagtt tcgtcggaga cattcttcga aacgt 405

<210> 4931
 <211> 339
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-051-Q1-E2-H5

<400> 4931

accacacgcgt cagccacgc gtcggtgtgt gtttgtgaaa ttaaaagctt gccgtgttaa 60

aacaaacaac agaaaaaat aaaaataata gaaaaaatc taaaaaacga gaatgttgcc 120

acagggttttt caaaaacggc gttaggacta tatctgtaca gtgtttccat caactgcac 180

acgaagcctg ggtcttctat gacatcaagt gaacatgctt gtcttgcaaa ctgtatggat 240

cgctatttag atgcaatggg aatcgtttcc aagactttaa tagagacaac ttcacgtaat 300

tccaactagt ttgtgtatga tccgaagatt tttgacctg 339

<210> 4932

<211> 423

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-051-Q1-E2-H7

<400> 4932

aattcccggg ctgaccacg cgtcagccca cgcgtccgct gacgcgtcag actcgaccaa 60

agttgcatac atagtcgttt cgatatagtc ttatatggtc gcgatgtgtc tgaaacttca 120

gctctcctat atgtatagct agtggaacaa cagtttagct tccttgatgg actcaggat 180

aggtgcccag attgcttcaa gtggatgcag aatggtaacg acgatggatc gatatgaagg 240

atattgggga ctgcgtacaa caggctggct tgctcatgtg ctatctgaca ctgcatgtat 300

caggacattt tcaagtgctt ctgatgctat tcaaactctc cgtaaggacc ataatggagt 360

tatagatgag ttccatctc catttactat cggcgacgat aagagagatc atggtaggaa 420

aat 423

<210> 4933

<211> 314

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-A11

<400> 4933

gtcaggagat tcccgggtcg acccaagcgt ccgcggacgc gtgggtggta gcagttgtac 60

attcaacatc atcaaatgcc aaaggaggga aagaaagatt cttcaaagaa agaagccaca 120

agtaaacctg cagcagcaga tgctacaaag acgacagaaa agtctgggtcc ggaagccaag 180
 ttgaagggaa ctggtgcaaa gaaacaataa aaagttgact atgcatgttc ctgttatgtt 240
 ttgtgagttc tgtttgatag tttccagcta ttcttttggg agtgaataaa gagaaaattt 300
 tttatattta aaaa 314

<210> 4934
 <211> 286
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E1-A9
 <400> 4934

gtcaggagtc cccgggtcga cccaagcgtc cgtgtacatt caacatcatc aaatgccaaa 60
 gggaggaaag aaagattctt caaagaaaga agccacaagt aaacctgcag cagcagatgc 120
 tacaaagacg acagaaaagt ctggtccgga agccaagttg aagggaactg gtgcaaagaa 180
 acaataaaaaa gttgactatg catgtgcagt cctgttatgt tttgtgagtt ctgtttgata 240
 gtttccagct attcttttgg tagtgaataa agagaaaatt ttttat 286

<210> 4935
 <211> 438
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E1-B1
 <400> 4935

ggtaccgggc atggaattcc cggctcgagc cacgcgtcag ggaagaacgg accgagtttt 60
 acaagtcgat attgctggag tattcttctc tgccgttttt tcaggagttt tgatggtaac 120
 aaagtctttt tcttgagttg tttatttacg gtagttagat tccggccttt tttgcgttca 180
 agaggtgaat tccaatagag catttgagga acggaagtac ttattttttc attgcgggag 240
 gaaggcgttg tttcgtagct attgctgttc tggccattct gtatgtaagg tggcttaaag 300
 gaaatgaaag aatgcgactt gagttgctgt tgggcaagga gaagacagca acaataacag 360
 gaacagtgaa tagttagaaa ggttgatgtt cgtagatatt cactactttt aaaaggattc 420
 ttttctgctt tcccaaac 438

<210> 4936
 <211> 427
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-B5

<400> 4936

```

cccacgcgtc cgccacgcg tccgccacg cgtccgcaat acattgcgcg tgcaagaacg   60
gcaaagacat cgcaaaaagt gaatgagatg ctcggctccg tgaatacgag ttctgcaggg  120
gaagcttgtg gaaggatgaa gtccaaaggg gggggagtgtg gaagcgagtg cggaagcaag  180
tgcgggtatg attggctctg gagatggggg ggtgggacga cagtttcagg cgggggaagg  240
aacttcggtc gatgatgaag tggcacaact aaagtcgagt atcgagtctt cttctcgacc  300
taaatcactt ccttttcagc aggatcccaa tatagaagct gagttggacc gaatgaaaag  360
agaacgagat tattcttgaa ctgttcaagg ggggcaatga atagacagta tatatatata  420
tatatat                                         427

```

<210> 4937
 <211> 418
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-B9

<400> 4937

```

gtcaggagtt cccgggtcga cccaagcgtc cgattgaaat ggcgccatgg aacctatttc   60
ggattgatcc tttttctttc tctgtgtgtg tgtgtgtgtg tgtgtgtgga ttggcgcctt  120
gtcttggatg aaagtttcgc ggctccgttt cttgactctg gtgacgttat tctttacttg  180
ccttgttttg gtgacaagca agacagacac acaagggtta tttcacaggg cttctgaatc  240
aattccgttg catgattcca acgagtcctg cagtggctcg acagaagagt ctttcgagtt  300
tcaggccgaa gttcaacgcc tgatgaacat catcatccat tcgctgtatt ctaacaaaga  360
aatattcttt agagagttgg tttcaaacgc tgccgatgca ctggaaaaat tgcgtttt   418

```

<210> 4938
 <211> 426
 <212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-052-Q1-E1-C2

<400> 4938

agcccacgcg tccgaaaagg atatggtatc tgcggtagaa catatgaaag aagcagcacc 60
gactgttttag caaaaacaca gcactctgca gaaaagagaa aatgtaaagt atagagtgtg 120
cggcctgcc aatagtagag aagaggtcga tgaagtgaa agcgagtaaa agatgaggta 180
tagagaatgg cggtcctaac ggtgagggtc caaaggtagc gaggtaggta gacgtttgaa 240
aggcgtccag tatgaaagga gaaacgagtg tagcactgtc tagtcgtcca actcagcgaa 300
acagcaataa ctgtgaaaat gcagtaaaact agcagtagga cggaaagacc ccataattct 360
tgactagata ggtttangga ggagagagaa tcatgaagta gangaggtgg ggtaagagat 420
gaaaga 426

<210> 4939

<211> 424

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-C3

<400> 4939

aattcccggc tcgagccagg cgtccgcgac tagcgaagtt gcacaatttc ttcccatcat 60
ttctatatcc agcatgcgta cggttgtggt cactggagcc ggaggattcc taggaaagtt 120
gctggttgag aaactctcca aggaggagtc tattgaaaca atactagcgc gtgatatgaa 180
ggagccactc gaaagcttag ggaacttgcc taaaacaaag aggggagtg gagatatcac 240
cgaggagttg caagttaaga aagctattga aggatatcaa gtccacgggg tcgtccacct 300
cgctgctatt atgtcaggtt tatctgaagc cgatataacc agtgcaatga aaataaatat 360
gatcgggtgcg ataaatatga tgttatccgt agcgaacgag gcaacaaatc caagatttgt 420
tttc 424

<210> 4940

<211> 443

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-C5

<400> 4940

gaattcccgg gtggaccac gcgtccgccc acgcgtccgc ccacgcgtcc gccacgcgt 60
ccgaatcagg tccgtcgcta ttcctgctgt tgtttctacc ggagcagggc tatctgttgg 120
tgtagctgcg gcagttgcaa aggcttggtc tgacctggat cagggagggga gtggcagggga 180
tagagcgctc ttgagtttgc cccaagtttt caaaagtggg gggggggagg gcaatcttcg 240
cgggcgtaa ggacaagggt ctattgaagc ccgaggtaaa gctgagagaa ttgcaagaca 300
aagagcagga ggtatccgta gtgtcgaaga tgacgtcgta ccagaggaac ccaactttct 360
agcaaagggt cccaaacggg agcgagatgg gagagcagct ttcgtccct cagagaagtc 420
agaccggttc tccctcgag cca 443

<210> 4941

<211> 441

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-C7

<400> 4941

gaattcgcg gtgaccac gcgtacgcat catgaaagct gctgtctttg cattctttgt 60
cttagacta tgcgcgttg ctattcaagc ttctctcta gaggacactt tgggtgcctt 120
tatgcggggt gggtatcaat cgcaaagcca agcaccaaaa cctagctgtt gcaagttgag 180
ctgtcattat acccaaattt gtgaacaagt tatcgtggag gactgggcag gtcgtccaag 240
ctgcgagaag tttaacaaac acaacaagta cagcaaacac aacaagtttc gtcagcatac 300
ggacgcaatg aggtatccag agggggatat ggccaacagt ctgtagcccc agctcctgca 360
ccttccgtgt cagtgttcca gtcaagtgtc gtattgagtg ctcgtcttgc taccaacaag 420
tttctcagca agctcctcaa c 441

<210> 4942

<211> 430

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-D1

<400> 4942

aattcacggc tgcacccacg cgtacgggtg taattgtata caaacgttat cgtagtatgc 60

tgggtctcaa aaagtctttg tatcctgctg cgacgactcg ttcaactttc gcaaggcaaa 120

ctattttctg ggcgcttcga gttagttagt atttgatggt tttcagaggg acgagaattg 180

gaagtttgat caaccgcttt tatcagttga cgcacgagg agaggcaggc tttggtctca 240

tgggtgctgca tgcagttact cagagtttgc aagggtttct atttggactt atttatattt 300

accacgaaag agcactaggg gaagttgttc tattcattcg tcgcaagtgg agtcgcagag 360

gggattttcg cgaggattct tttatcgcat tagagaaaag aggacttgct catttttcac 420

aatttgatga 430

<210> 4943

<211> 430

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-D2

<400> 4943

aattcccggg tgcacccacg cgtacgcttt tgtagtggtg aaagggtttc cgtgcaaagt 60

ggtagacata tccacctcaa agacagggaa gcatggccac gcaaaagcca acatagtagg 120

tagtgatata ttactggca agaaatagga ggaaatgtgt cccacctcgg agaagagtct 180

gcagccggtg gttaaccgca aagactatca gttggtagat attgaggacg agagggtgtg 240

acttcttagc ggaggaaaac aacgagacga gatcagacct gaaacttgat ttggagaatg 300

atgaagtaca caagaagatc aagcaagact ttgacgaggg gaaggaactt ttggtgaccg 360

tactttcggc aatgaagata gagaagataa ttgcttcaa ggagcttaat tcgtaagcta 420

gttgctgact 430

<210> 4944

<211> 514

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-D3

<400> 4944

ggggggtagg ggggggggcg gggggggggg ggggggggga gggggggggg gcgggggggg 60
 gggggggggc gggggggggg gtggaacttc ggggccggga ggggttacgg ctcgagccag 120
 gcgtccggcc acgcgtccgg acgtctttgc gtgttctgta gagaaatggt tattgttccc 180
 aagacgagac gtacattttg tcctggaaag tgtagaaagc gcactttaca caagggggcg 240
 gagtagggga aaggaaaaga ctccctgggt gcggaaggaa agagaagata cgaccgaaag 300
 caaaaagggt atggcgggtca gagggggggc ggggttcgag aaaaggggag gacaaccaa 360
 aaaatagtat tactgcgcga gtgtgtggac tgtcactaca agacgcagca tacactgaag 420
 cgttgtaaac acttcgagtt gggcgatcaa aagaaagttc gaggtggagt tactttttaa 480
 ataaaactat gttcgaaaga tacaacata agtg 514

<210> 4945
 <211> 226
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-052-Q1-E1-E1
 <400> 4945

acggtcagga attcacggct cgaccaggc gtacggtaac acatgcaagt aggtaaagcg 60
 aacgggtgag taaagagggtg tgaaagagtg gaagaacatg aaagcacaga agaatgtaag 120
 aaatggttgc agtaaaaacc atcaggggag tgagagggga atctgagagg aggggggggg 180
 ggggggnaac tgagaaaagg tccaaacaag agaagtgagc agtgcg 226

<210> 4946
 <211> 353
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-052-Q1-E1-F1
 <400> 4946

taccggttag gaattcccgg ctgaccac gcgtacgcga gaaggagagg gcgtaagacg 60
 tgatacagag taggaagaaa agagaagaga gctagaaagg aggtaaaaga agagtaaaag 120
 gactagaaga cgtacggaat tcacgaggag ggagcgtggg ggaaggagga atcccacggg 180

ggcgggggga gaaaaagctt cggtgaaagc gtgaacggat tttgtacaca ctgtggggga 240
gcggggggaa ntgtgtggcg gggtaaagcan gacaagtaga agagagtagg agaagaggaa 300
aggaagtga gacgtaagac gtgaaacaaa ttgcaaaagg gcgggcgctc cag 353

<210> 4947
<211> 424
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-052-Q1-E1-F3
<400> 4947

aattaccggg tgcaccagg cgtccgcca cgcgccgag gaaccggtgt agtctatgca 60
gtaaaagaaa gaatgagtaa gaaaaaagg agtcattcca ccaggggagt aaaggcgcaa 120
gaaagaaacc caaagcaatt gacgggaagc ggaaaaagg gtggatgacg tgggttaatc 180
cgataaaccg agaaccttac ctctccaaga aggtgttgca ggggggtcgg aggaacgtgc 240
tgtgaagtgg gagaacgtac gagaaagcca agtgacgaaa agaaggcaag tagagggcgg 300
cccgagaaaag gagagggcgt aagacgtgat acagagtagg aagaaaagag aagagaggggt 360
acgcttagaa gcagcaaacc agagaggaaa gcgttaaagc atgaaagaaa agaaatccga 420
aaaa 424

<210> 4948
<211> 410
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-052-Q1-E1-F7
<400> 4948

at tt ttgtgga ttgatagttt ttatactatc gacgcattgt ttgaatatct gccctatcaa 60
cttttgacgg taggatcgag gcctacgggtg gtgttgacgg ctaacgggga attgggggta 120
caagaatgga atgaggtggg gaagatatct tccttagata cttggaagct tgtgcttggt 180
acaagagcgg ggggtgcggg ggatgttaca gggaggtgca caagctgacg agcatcttgt 240
cctttttata ctcgggcgaa caaccgagag tggactatat cgttgctgag gatgaagcaa 300
gttgggaaaa gttgtggaga ggaaaacgcg aggtcattgg atatactttg gaagcagctt 360

tacagaaaac ttgtattgtg gaaaaccagt tgagggagtg gacaaagaaa 410

<210> 4949
<211> 402
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-G1

<400> 4949

taccggtcta ggaattaccg gctcgacca ggcgtccggg tttacgagag aaggaagtag 60
aaagaagaga gtgtaaggcg gcgtcataat agaaatccga aaggagtaga agaaaagaga 120
gagaagaaag agaagaagag aaaagccgta ctgaagagcg gcacaggtag tcgaggacaa 180
gggagaccca aattaagggtg agagaatgga cgataaggaa ctaggcaaaa ggatgagggg 240
gcggcggttag aacataggag agaagcagca ccgactgttt agcaaaagca cagcactctg 300
cagaaaagag aaaatgtaaa gtatagagtg tgcggcctgc caaatagtag agaagaaatc 360
catgaaagtg aaagcgagta aaagatgagg tatacagaat gg 402

<210> 4950
<211> 400
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E1-G11

<400> 4950

gaattcccgg gctgaccac gcgtcaggct gcaacttgca actcgtctcc ttttcgttct 60
tctttcaccg caccgctatg caaaaaatgt gcttgctgct ctacccttc gttgcctaga 120
gtggacgatg ataccttttc gcgccaagtc gtgtccatga aaggcagaag ggacctcaaa 180
aaggaaaaga aactacgcaa tttggagttt gctaggctgc atcggaagaa aaaagaacgc 240
aagagaaagg tgaatcaaga gacgttgctg gtgatggacg ataataactt tgtaagggaa 300
gtgttttctg catcggaaga atcatcgagt agtagcagcc agttggagac tggatagcat 360
atggatgaat aagatagtga ggtttagcaa tgcaccaaaa 400

<210> 4951
<211> 284

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E1-G5
 <400> 4951
 gacatagaat ggcaacagat aaagtcagct aagaagatat actcttgtgt aaaagaatca 60
 tgggggacggg gagtagttgg agctagacga ttcggtggca ggaggcagtg gattcatctt 120
 gtagcaccaa gtggctgttt attgcaacgc ggggggtgcg gagttgcttg tagggagggg 180
 cagcgaattg aaatgattcc tttgaggaaa gatataaagg aattgttttt ctctacttta 240
 aagaagaact ttgagtcgaa cgaagcgtca tgggagtgca gtgt 284

<210> 4952
 <211> 291
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-A11
 <400> 4952
 agcggacgcg tgggtggtag cagttgtaca ttcaacatca tcaaatgcc aagggaggaa 60
 agaaagattc ttcaaagaaa gaagccacaa gtaaacctgc agcagcagat gctacaaaga 120
 cgacagaaaa gtctggtccg gaagccaagt tgaagggaac tggtgcacag aaacaagaaa 180
 gagttgacta tgcattgtgc tgttatgtta tgtgagttct gtttgatagt ttccagctat 240
 tcttttggtg gtgaataaag agaaaatttg ttatatatta aaaagatgaa t 291

<210> 4953
 <211> 369
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-A5
 <400> 4953
 agccacgcg tccggagatt ttgcgcgcca tttctctcaa tggagcttg gogaggtggt 60
 atgaagagaa aaattttag tcttgcgagg caacattcct ccaacaaacg tagaataaca 120
 gacaacatgt gggacagagc acaggatata ctgcctgatg ataaaccaat attttatgga 180
 aaaaaaaaaa aaataaaaaa aaaaaaaga aaaaaaaaaa aaaaataaaa aaaaaagaaa 240

aaaaaacaaa aaaaaaaaaa aataagaaag ggtaacaaca cagtaagagt tcacactaaa 300
 agtagtattc aagggggaat caaaggaaca tcatcgccgt aacataaatc aaaaacaaaa 360
 gggggggggg 369

<210> 4954
 <211> 278
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-A6
 <400> 4954

ggtaccggtc aggaattccc gggccgaccc acgcgtcagc ccacgcgtcc ggagattttg 60
 cgcgccattt ctctcaatgg aagcttggcg aggtggtatg aagagaaaaa tttgtagtct 120
 tgcgaggcaa cattcctcca acaaacgtag aataacagac aacatgtggg acagagcaca 180
 ggatatactg cctgatgata aaccaatatt ttatggaaaa aaaaacaaaa aaaaaaaaaa 240
 aaaaaagcaa aaaaataaaa aataaaaaat ccagaaaa 278

<210> 4955
 <211> 273
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-A9
 <400> 4955

tgtacattca acatcatcaa atgccaaagg gaggaagaa agattcttca aagaaagaag 60
 ccacaagtaa acctgcagca gcagatgcta caaagacgac agaaaagtct ggtccggaag 120
 ccaagttgaa gggaactggg gcaaagaaac aataaaaagt tgactatgca tgtgcagtcc 180
 tgttatgttt tgtgagttct gtttgatagt ttccagctat tcttttggtg gtgaataaag 240
 agaaaatttt ttataaaaaa aaagattgag gaa 273

<210> 4956
 <211> 423
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-B12

<400> 4956

ggtcaggaat tccccggctcg acccaagcgt cagcccacgc gtccggaata ttgttgcaag 60

gccagggcag cacagatatc aagttggaag cccgaaacag ttattgtcgc cgcgttcctt 120

gtttttacta caaacattag aatggaattg gggcaagaaa actctagagt tcctaccctt 180

ccccacaaac tgcacctaat ttttgagcga cccggagctc tcaatactgg tggtagagca 240

gcgatggctg cactggcttc tgttttgtct ggaaaaaacc ttgtgataca acccaactgg 300

atggacaacg aggggtgtaa caaatattgt atggataaac gggattatat gggatgctgt 360

agtttggtaa caatactga agagtggccg ttgttggagt ggaacgcgga aaatattccc 420

cga 423

<210> 4957

<211> 390

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-B9

<400> 4957

agattgaaat ggcgccatgg aacctatttc ggattgatcc tttttctttc tctgtgtgtg 60

tgtgtgtgtg tgtgtgtgga ttggcgctt gtcttggatg aaagtctcgc ggctccgttt 120

cttgactctg gtgacgttat tctttacttg cttgttttg gtgacaagca agacagacac 180

acaagggtta tttcacaggg cttctgaatc aattccgttg catgattcca acgagtccgt 240

cagtggctcg acagaagagt ctttcgagtt tcaggccgaa gttcaacgcc tgatgaacat 300

catcatccat tcgctgtatt ctaacaaaga aatattcggt agagagttgg tttcaaacgc 360

tgccgatgca ctggaaaaat tgcgttttct 390

<210> 4958

<211> 423

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-D2

<400> 4958

cgggtcgagc cacgcgtccg ctttatgtag tgttgaaagg ttttccgtgc aaagtggtag 60

acatatccac ctcaaagaça ggaagcatg gccacgcaa agccaacata gtaggtattg 120
 atatcttcac tggcaagaaa tacgaagaaa tgtgtcccac ctgcgacaa attctgcagc 180
 cgggtggttaa ccgcaaagac tatcagttgg tagatattga ggacgatggg tttgtagttc 240
 ttatggatga aaacaacgag acgagatcag acctgaaact tgatttggag aatgatgaag 300
 tacacaagaa gatcaagcaa gactttgacg acgggaatga acttttggtg accgtacttt 360
 cggcaatgaa gatagagaag ataattgctt ccaaggagct taattcttaa gctagttgct 420
 gac 423

<210> 4959
 <211> 425
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-D3

<400> 4959
 gtctagaatt accgggtcga gccacgcgtc agcttttagt agtgttgaaa ggttttccgt 60
 gcaaagtggg agacatatcc acctcaaaga cagggaagca tggccacgca aaagccaaca 120
 tagtacgtat tgatatcttc actggcaaga aatacgtat aatgtgtccc acctcccaca 180
 acattctgca gccgggtggtt aaccgcaaag actatcagtt ggtacatatt gaggacgatg 240
 ggtttgtagt ttttatggat gaaaacaacc agacgagatc agacctgaaa cttgatttgg 300
 agaatgatga agtacacaag acgatcaagc aagactttga cgacgggaag gaacttttgg 360
 tgaccgtact ttcagcaatg aacatagaga agataagtgc ttccaaggag ctttaattcct 420
 aggct 425

<210> 4960
 <211> 453
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-D6

<400> 4960
 gtcaggaatt cccggggccga cccacgcgtc aggtactcct cgaaagctat ataagtagcg 60
 tatgcaggaa agaagaaggt aaaggaagag aaggaagaag cagagagggga ctatgagcga 120

gaaggtggat agtcgagagg gaaaaagccc agaagccaag ataaggtatc aaagtaaaga 180
aagaaggaaa aggagaagaa gagagggtag gcttagaagc agcaaaccag agaggaaagc 240
gttaaagcat gaaagaaaag aaatccgaaa aagaagagaa aaaggtaaga aagaggaccg 300
aatcagggtg agaggtagag gagcaagaag agaagagaga atgctgggtg gagtagcgaa 360
acaagagaag ggaagtaaaa ggtaagaaag acgaaacgtt tacgagagaa ggaagtagaa 420
agaagagagt gtaaggcggc gtcataatag aaa 453

<210> 4961
<211> 411
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-052-Q1-E2-D9

<400> 4961
aggtaccggt taggaattcc cggctcgacc cacgcgtacg gggaaaccaa agacatttgg 60
gttgcaaatg ttggaggaaa accacaaagc gttttactca ttgaaaagtt tgtcagttta 120
atggaaaacg aaaaggaaga acgggagaaa tgggcatgag aagcatggaa aacgcagtta 180
attgtcgatg ctatttatca atccgcagaa accaagcaag tagttgtcat gaaatattag 240
ttttctttgt agtatttcta aagatttcca tgtttgtatc gtatatgatt actgagatgt 300
acacgacgag gaagtcagtg tttgttgaag aaagctttgg ctatacaact gggaacgatg 360
acttgtgcaa taaatgtcac acaaattgtga cgtttttcta cgagcaagtg c 411

<210> 4962
<211> 393
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-052-Q1-E2-E10

<400> 4962
ccggctcgac ccaagcgtcc ggcaagtttc cagatacaaa gaagaaaatt ctatgctccg 60
agaagccttg gatcgttttc gttcgagcag gagtttatgt ggtgcggaga caaggacgag 120
tgtatgttat ccagagtctg aagaagattc atcgggagaa gtgcaataga ggagaaagcg 180
gcggcgagg aaacgggagg atattaccag tccgaagagg caagatagtg actcacggga 240

gagtgatgat tccagtcgcc tggaacgaga gcaatgtaac gaagaagaga attagttcaa 300
 tcacagactt gattctcttt acttgaagtc taatcggcag aataatgtga caacagatcc 360
 tgcatagttt gtatcccttg gtaaagatat gac 393

<210> 4963
 <211> 393
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-E12
 <400> 4963

cgaccacag cgtcagccca cgcgtccgcc cagcgtccg caagttccta tgatactctt 60
 tatactctcaa ggctctcatt acttggaaag gatggcagat gttggttttg atattatttc 120
 tgtggattgg acggtggata ttggcaaggc gagagaacgc atgggttctt cttctggtat 180
 tcaaggcaat ttagatcccg ctattttgtt agggacacct caactcattg aagagcgcac 240
 gcgtagatt attcataaag ctggacctcg tggatcatatt atgaatttgg gacacggcgt 300
 attaccaac acaccagaag aaaatgtagc caaattcttt caaacgggtgc aacaatttcg 360
 ttggcaagaa taaatttact ctattagctg cgg 393

<210> 4964
 <211> 466
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-E3
 <400> 4964

ggtctagaat taccgggtcg agccacgcgt ccgccatttt cctctgtcgt ggataggcga 60
 tgacttggtt aagattgttg cttacgaggc aactggcagg gaaatgtgga aatataacac 120
 tagttggtag tcttccatcc attcgatcgg tctctagtgt tcttccttca tgtaactatt 180
 ccttcgcaag taacattcaa aggagatcct tctcggctgt tccttcggag gaaaaggcaa 240
 ataaacaaaa ggaagaagct aatgttacac aagatacttc caaaagtact tctccaactg 300
 ttttgcagga tacttatggc tttgaattaa gaacaggccg agcggacagg atgccttctt 360
 cgtttgagca agccacggga agtgaacgag cagaattgga agatcccgat atctatcgta 420

atcctgaaaa gtttgtcaac agcagagtta tgattgcacc ctttgg 466

<210> 4965
<211> 431
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-E6

<400> 4965

cccggtcga cccacacgtc aacacacatt catgtttgcc tttcagtaca gtttatgttc 60
cagttctatt tatctaagga gagttgcatg gaagagtatc aattatcatg gttaccctcg 120
agttggcgta cctaataata gggaatctt tccaggaatt atctcaagtg ctgccgatag 180
tagcagtga aaggaaggtg tcaagaatat cgttgataat atcaaggaaa aaggttctga 240
aatatatcac tcagttgaag aaaatgtaaa gaaggagca gaaaaagtat cagaaaacgt 300
tgatgaattc aaagacgctg tgcaggatag aatggaaaat gcagatactt ccagagcaga 360
agacgtagca cgagatgttg tagataacgt caaagatgct ggacaatccg gtaaagaagg 420
tgtctctgat g 431

<210> 4966
<211> 409
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-E9

<400> 4966

ccggctcgac ccaagcgctc ggcaagtttc cagatacaaa gaagaaaatt ctatgctccg 60
agaagccttg gatcgttttc gttcgagcag gagtttatgt ggtgcggaga caaggacgag 120
tgtatgttat ccagagtctg aagaagattc atcgtcaaaa gtgcaagaga ggagaaagcg 180
gcggcgagg aaaggggagg atattagcag tccgaagagg caagagagtg agtcacggcg 240
gagtgaggag tccgaaagag aggaacgaga gcaatgtaac gaagaagaaa attatttcta 300
tcacaaactt gattctcttt atttgaagtc taatcggcag aataatgtga caacaaatcc 360
tgcagagttt gtttcccttg tcaaagatat gacagagcct cttatgaag 409

<210> 4967
 <211> 348
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-052-Q1-E2-F5

 <400> 4967

 taacggtcac gaattcccgg gccgaccac gcgtcagagg ttatgcagtt gatcaagcta 60
 cttcaagtga ggaagataca gtcgtggtca tacactttgg tccagacggt catccgacat 120
 gtatgttgat gcgacacaca tcttactgcg cagctcaagt gataaccttt ttgctgtcc 180
 tctattcggc cgatataccg gaagtatctg actttaactc tatgtattaa gtgtatgatt 240
 cttgtaccgt tatgttcgtc attcggaaac cccatattat ggtagacatg gctaccggta 300
 ttaagaggtt gatcaactgg gctaccgctg actttcagga tcttattg 348

<210> 4968
 <211> 416
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-052-Q1-E2-G1

 <400> 4968

 aggccggtca ggaattaccg ggtcgagcca cgcgtccggg ttacgagag aaggaagtag 60
 aaagaagaga gtgtaaggcg gcgtcataat agaaatccga aaggagtaga agaaaagaga 120
 gagaagaaag aaaagaagag aaaagccgta ctgaagaccg acacaggtag tcgaggagaa 180
 aggagacca aattaagggtg agagaatgga cgataaggaa ctaggcaaaa ggatatggta 240
 tctgcggtag aacatatgaa agaagcagca ccgactgttt agcaaaaaca cagcactctg 300
 cagaaaagag aaaatgtaaa gtatagagtg tgcggcctgc caaatagtag agaagaaatc 360
 gatgaaagtg aaagcgagta aaagatgagg tatagagaat ggcggtccta acagta 416

<210> 4969
 <211> 344
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-052-Q1-E2-G10

 <400> 4969

ggtcaaaaag cgtctttttt ttttctctgg agcaaagtc gtttcgattg tgaatccaaa 60
 catttggtgg cctcttattt gtccttggtt ctccaaagat ttttttttcg ccctagaaaa 120
 cttaaacgga tcatgttgga ggctccagtt gaagaaaaga tactttgtgg tagacagcga 180
 tattgcctca gattgtagaa agtattgcac tggtttatac agagataacc acgtcttagt 240
 gacactgaat ttataccgtc cgctgtctga gagtcgtttg ttcctagtat tgcatttttc 300
 ttttgttttc ttgaaataaa aatttggcgc caattgttac tggc 344

<210> 4970
 <211> 325
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-052-Q1-E2-G11

<400> 4970

agggtgaaac ttcgtcctcg tctcctctcc ggaccacatg tagtgtagcg tgagactcca 60
 aatatgtggg ggggttctaatt ttgtcggtgc ctcgagtggga agattatattt cgctcgagac 120
 aagttgtgtc gatgatgtgg agaagggcaa gttgaagaga agatactttg tggtagatgg 180
 agttagtgtc gcagcatgtg aaaagtattg cactgggttaa aacagtgtatt cacaagtcgt 240
 agcgggtgtg agattgatac cgtccgctgt cggagattct ttcgttctta gtattgcaat 300
 ttacttttgt catcgagtaa gagac 325

<210> 4971
 <211> 367
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-052-Q1-E2-G2

<400> 4971

acgcgtcagc ccacacgtcc gcggacgcgt ggggtgcaggc aatagaatga cgcagtagat 60
 cagagactan cacatgcaag taggtaaagc gaacgggtga gtaaagaagt gtgaaccagt 120
 ggaagaacat gaacgcagac acgaatgtag aaatggttag agtaaagtcc atagaagaag 180
 taaaagcggg aatctgagag gatgaaagcc acatcggtac tgataaaagg tccagcacca 240

cagaactgag cagtggggac aattgacgca tctacaggga aataatgtcc agtatagagg 300
attggactac cagataatga agtagaaaga gggaatgatg ggaactaatg gcacatgaca 360
gtatcca 367

<210> 4972
<211> 463
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-052-Q1-E2-G3

<400> 4972
ggctctagaat taccgggtcg agccacgcgt ccacggctcg tgagatgcta ctccacaagg 60
taaagaaccc ttcgagagtg gactttgtcc atgtcgatgt tatggaaaaa tctgtacttt 120
ctagcgtatt aaaggatgct gaagtgggtt tcttctgtgc ttcagcttct gcaggggtgga 180
gagtccttgg tacttctaag aacaccccga aacagggtgga ctacttgggc gccattcatg 240
tcgcagaagc ggcagcccaa gctaagggtta aacgtctcat cttggtaagc tcagcaatgg 300
tgactaaccg aagttcattc ccttatttgt tcttgaactc tgcatttggga cgaattatgc 360
attggaaaag gcaaggagaa attggagtca tcaaagttca tgagaaaaat ccagaaatgg 420
cttatactat tgttcgccca ggacacctga tanatgagcc tgc 463

<210> 4973
<211> 338
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-052-Q1-E2-G5

<400> 4973
gacatagaat ggcaacagat caagtcagct agaagatat actcttatgt aaaagaatca 60
caaaccaaag aatatttggga gctagacgat tcgttgcagc agccagtgga ttcacgtgtg 120
agcaccaagt ggctgtttat tgcaacccca ctgttggag ttgcttgtac tgatgggcag 180
cgaagtgata tgattccttt gaagaaagat agagaggaat tgtttttctc tactttatag 240
aagaactttg agtcgaacga agcgtcatgg gagtgcaatg tacttgacat cgcagttgct 300
gtttttatcc agtattatga agagtgcgtg gaacagta 338

<210> 4974
 <211> 387
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-H10
 <400> 4974
 gaccacgcg tacgtgattc ttcttcttct ggttcttctg gttctgagag tgacgatagc 60
 tttgattcgt catcagatga ggatagctcg gatgatgagt actatagtta tgatgaagat 120
 atttctgatt atgattcggga agaagaagtt gatgacttgt tttcagaaga agacacggat 180
 tcagaagaag aaggttccag tgactcggat gacgtgtaaa agagtgtaca gtgcagcaat 240
 ggaacaaaag ttgtttcgca acagtgtata gacagaaata gatagatgta gaaaggaaaa 300
 cagcgaacta ttattatcta ttcttttcac caaggaacaa ccgtttgctc gtccttgtgg 360
 gcgtatatat gtccatagat tatctaa 387

<210> 4975
 <211> 463
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-052-Q1-E2-H3
 <400> 4975
 cggctctagaa taacgggtcg agccacgcgt cagatttgaa acgcgtgttt ggttttttac 60
 tttgtacttg attcttgtaa aacatgtctg acgatattgt tgccttggtt attgacaatg 120
 gctctggtat ggtgaaagca ggagttgcag gggacgatgc tctcgttcc gtcttccctt 180
 ccatcgtagg tcgaccaaga caccaagcta ttatggttgg tatgggacaa aaggaaagtt 240
 atgtgggtga tgaggctcag tctcgaaggg gtatactctc tttaaaatac ccaatagaac 300
 acggtattgt cactaattgg gatgatatgg aaaagatatg gcaccatact ttctacaatg 360
 aacttcgaat tgcacctgaa gagcatccag tcttggtgac cgaagctcct ctcaatccan 420
 aggcaaacag ggagaanatg actcagatca tgttttgaga ctt 463

<210> 4976

<211> 300
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-H5
 <400> 4976
 aatccgggcc gaccacgcg tcagaagaaa ctaaaggcgc gcaatgtcgt ttttgtggga 60
 aaaaaaata aagacacaaa aggaagagat taataaaaag aatcacacaa aacaaggatt 120
 taaattgctg tcgtggcaag cggcattgtg tcattcatgt ctgtgcaaca gatgtacaag 180
 ttgttgata ctgtctccag gactaaattt gttaaccggg cttcaagtca ttttataacg 240
 gtgatatttt ggaacttccc tgccattact ctgcttcttc accttgaccc ctttgtccaa 300

<210> 4977
 <211> 220
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-H7
 <400> 4977
 agagtgactg tcttctatt ccattttcca tacaatactc taattgtccg taaggtttca 60
 atattattac aagtaaacad gagttgttca aagtaaaaaa aaaaaaaaaa aaaaaaaaaa 120
 aaaaaaaag gaagaaaaaa aaaaaggagc aaaaaaaaaa taaagataaa agaaaagtaa 180
 aaagttcatg aaaagagtaa aaaaaaataa aaataacggg 220

<210> 4978
 <211> 419
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-052-Q1-E2-H8
 <400> 4978
 gaccacgcg tcagcccacg cgtccgccca cgcgtccggc agaatggacg acaggcttcc 60
 acgtttcaaa agaactttcc acagagtgtt ttataagaaa agaaaggaag acacagtaaa 120
 tgaggcgaga aagcatagga agtgaaacga tangaaccgt gtagtctatg cagtaaaaga 180
 aagaatgagt aagaaaaaag ggagtcattc caccagggga gttaaaggcgc aagaaagaaa 240

cccaaagcaa ttgacgggaa tcggaaaaag gtaagaaaga ggaccgaatc agggtaagag 300
 gtagaggagc aagaagagaa gagagaatgc tgggtggagt agcgaaacaa gagaagggaa 360
 gtaaaaggta agaaagacga aaggtttacg agagaaggaa gtagaaagaa gagagtgtt 419

<210> 4979
 <211> 246
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-052-Q1-E2-H9
 <400> 4979

ggagtgagtg tgcagaggac tcgagccaat cgattggaat cctattggca atgactttgt 60
 cgtggagttg agttctggta cgggtgttga tcaagtttct ttggaagaca gagaatatta 120
 tgattatgat gaaaaggaaa aggaacaagt cgctattacc ggtttagaat ggcaatggaa 180
 gagagtataa atttccaaac aacaacaata atagaaaata tagtcataga aattgttttc 240
 cacaat 246

<210> 4980
 <211> 395
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-A12
 <400> 4980

gcgtcagagg aaagagaatc atgaggtaga ggagtacggg tgatagtggg agtgcggagt 60
 ataataatat ggagtatatg aggatatgga gaggagagta taatgagatg gataaggtac 120
 agtacgataa gtcagatggg atatatgtta atgggaatga ctatgggtaa taaagaggag 180
 agtgatcaat attacataac tgtatacagt gtactgatga tggatgatatt aggatgggtg 240
 agtgagaaga gggagaggag gatgaatgag ttactaggag aaggaaagag gaatagtgtg 300
 cagactataa tgttaatgat cagatgtat tcgatgatgg gaatgccagt tatggcacga 360
 ttttggagta agtatacggg aatgatggag agtgt 395

<210> 4981
 <211> 394

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-A2
 <400> 4981
 tgacggtcag gaattaacgg gtcgacgcac gcgtccgcaa tatcgacaat ggatggaaca 60
 acggcatcaa cagtggatgc aaaatgaaga agaagaatcg acagaaaatc atcatggcaa 120
 gccttggaag cgtcgaaaga cggcatatag tagtaatagt agtagtagta gcaatagtag 180
 cactagtcaa aaaggtocta gtacgagtgt tttggtagat gttgttgcac ccgatggcca 240
 agcaaagaag agaggggatc gttggcttga tgaagaggag acttgggagg agaataactca 300
 taataataat gaggatgatg aggatgatgg gaaagagtcg caacaacaac aagaagaaaa 360
 gcgtttacgc aagatggctt cttatttggc attg 394

<210> 4982
 <211> 411
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-A6
 <400> 4982
 aggtaacggt caggaattcc cgggccgacc cacgcgtcag gaggaagtat tcaacaaggc 60
 agcgaagaa gtaaaaaaac tgtcttcggc atccaacgaa gacaaactgg agctatatgg 120
 ttacttttaa caagccaagg aggggtgattg ctccaccgaa aaaccaaag gtctttttaa 180
 tcaaaaagaa aaagcaaagt gggacgcctg gaattccaaa aaaggtatct ccaagaaga 240
 agcacagaaa aagtatatcg aaaaggtcga tcaactatgc ggcacgcagt ttcttcaaag 300
 cgtttcctag tcaccttagg tccttgcctt ttttttgggt tgcggtcct aattcccaaa 360
 aaatatgagt aaagtacccg tttttttccg caaaaaaag aaaagaaaac g 411

<210> 4983
 <211> 355
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-A8
 <400> 4983

aattcccggc cgcacccacg cgtcagccca cgcgtccggt ttgattgggc tgtggaagca 60
gttgtaaact ttttcatgat gtggtggtgg tttgctggtg ctttgagtgt gatgatateg 120
aagcctagtg cccagtttca gcggagatat ggttttggtt tggaacttag tactattgca 180
gcctttaact ggttgaactt tggttttcat tttaccgaac tctatctgtc tattttgacg 240
acgtatgtgg cgatgcgcac gctaattccat attgcataag atcattacgc tgactactaa 300
ggctccttacg ctcatctgtc attgtcgctc ctgagtccca aaaactctgt ttgtg 355

<210> 4984
<211> 133
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-B1

<400> 4984

agtgcgggtca ggaattacgg gtcgagcccg cgtccgcca aacgtccgga ctgtggacgg 60
ctccacatta ctactgttcc tatgattggt attattattg cgcaattgac aatactagac 120
actttccata gaa 133

<210> 4985
<211> 347
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-B2

<400> 4985

ggtctagaat taccgggccg acgcacgcgt cagacgcaat agatcagaca gtaacacatg 60
caagtaagta aagcgaacgg gtgagtagag atgtgtgaaa gagtgaggga atatgatgag 120
cacaaaagaa tgtaagaaat ggtagagta aaaacgcata aaggaagtaa aagcaggaat 180
ctgataggag gaaagccaca ttggcactga caaatgtcc aaacatgaaa agtcatgcaa 240
tggggaaaat tgggcaatgt acagggatat atgactcagt aatgaagagt ggagttcaca 300
gactatgaag tcgaaggaag gaatgaacgg aagttatggc aaaaaca 347

<210> 4986
<211> 418

<212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-B3

<400> 4986

acgcgtcagc aacataggca tttcatctat tcaatgggtt gaagctggtg aactatatga 60
 aacggaagtg agaagcatat gtgcggcatg gtcggcattt tggatatttg ctagtgcctt 120
 tgtcaataca tatacattta gcaaacaagt cgatgcagtt ggagtaaagg gcctgtatgg 180
 actatataca gggtttactg tgttcttcat gatagtcttg ttcttcatct ttccagagac 240
 aaaaggcaag acattggaag aagtgaaaga aattatggaa ggagggtttac cattcattat 300
 tcataagaat atcgtagatg catggaataa cgtcaagtat ttgttctctt ttggtaaaca 360
 ccaatcccag atcaatagaa acctttggaa gagtctacag attcgtaact cagtctac 418

<210> 4987
 <211> 274
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-B4

<400> 4987

gtcagcaaag actttgtatt ccttggttact tgttgcccgg tgcaagataa gctcgttgaa 60
 aagtacgggc taccgagtat agaaccgtac tcggaatagc cggctccaac aacggaacat 120
 acaaataaaa tagtttattg gcgtgttttg gagtttggtc aaaaagaaaa aaaaaaaaaa 180
 aaaaaaaaaa taaaaaaaga aacacaaaaa aaaaaaaaaa caacaaaaaa aaaaaaaaaa 240
 aaaagaaaaa aaacaaaagg ggcggtcccc acaa 274

<210> 4988
 <211> 418
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-C10

<400> 4988

accacgcgt ccaccacgc gtccgcccac gcgtccgccc acgcgtccgg atgctcattc 60
 caagagatcg tccagtagca accagacttc gagccaagag agcaccgagg aagatgggtg 120

agaagatggt attcatagca atactgtgga gaccgacgtg ttacctccag gtggttttagg 180
 caatgctaatt ctccatgagt tggctgaaaa tgctgcaaag agtctcgtca taagtatgac 240
 ggaaagcgcc aaacagtccc aagatggagg cggatgaagcg gatgaaaact tggaatggtg 300
 tgcggaacaca tcaaaaagaag caattaaggc aaggcaagca gaagctgcag cagctgcaaa 360
 ggttttggaa ggtttgacgg attctaagaa gaagaagaac gtcaatgttc ctgtggag 418

<210> 4989
 <211> 317
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-C9
 <400> 4989

cacgcgtcag taccgagact gtgaatgatt tatgtccgta tccgcttatt gaaaacaagg 60
 aaaaacgtcc agtttctttt tgttctatct atggccaag cggcgactgt ttggatcata 120
 tttggtctgg agtggtgcca gttttgaata ttcacgacta tattttcttt ccaaagattg 180
 gaagctttct atccttgggt ttacgcgaat ttaatgactt ttcacgcaaa gtagatactc 240
 gttatatcgt tactttgtga ataaaaaaca acgagttggt ttattcacca aaaacaacgg 300
 cgaacatccg aaaactc 317

<210> 4990
 <211> 399
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-D10
 <400> 4990

gggcgaacac tacaagtagg gatggaaaacg cctaactgta gttcacgatt gatattgctg 60
 ttttgtttgg tctttataac gactataact ttggtaaag caaaacgaaa ctattataaa 120
 gtgctgggagc tggaaaagaa cgcttccgag agtatgtggt ttagcgttca ttctccaagt 180
 ttctttgact tttgttagga gaaattaagc ggcggtacca tcaactagca aggaagtatc 240
 acccgacaaa gaacggcggt gacaaaaagg cggaactgaa atttcgagaa atagctgaag 300
 gtaagtgtg gtaacttgtt ggcttcttgc ttcttttacc gcatttgttt agcatatgaa 360

gtcctatcag acccacagaa gagagacacg tacgacttg

399

<210> 4991
<211> 447
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-D2

<400> 4991

ccggtcagga attaccgggt cgagcacgcg tcagcccaaa cgtccgcca cgcgccgag 60
atggctgttt ggcttgggga agctgcctgt acgatcgat ttaccactta gggaatatag 120
ttctcattgt tgttcagaga cggaaagaat atttcggagc ttcaagatta gtttggggta 180
tacataaaaa gttccgagag accattggca acgaaggaaa attgagaaga gattggaatg 240
ggcgcgaaac gataagattc ttgccaacta gagtcgatgc aaccattagg aaagattgtg 300
ctagaataat accagcgaac aaaggagtaa ataatgtttg atgagagaaa agactcaaga 360
agtctatcat cgcgatatca tagagctgat aagtcaatca ctgtgtctta aagaaaaacc 420
aaatctcttg tatttatgga aatttct 447

<210> 4992
<211> 437
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-E1

<400> 4992

gggtcgagcc acggtccgga gaagaagaag gaaagaatag tgagtttgta caacaatggc 60
caatgatcca tcgttggttt gcttggaaga gagtagagga agtcattcaa gcgttaaaga 120
aagagaccga agcaactgca gattctacaa gcaagtttgc acaacaagcc ttggaacaaa 180
tattgaaagg ttctccaacy agtctcaaag taactttgga gtccatcgaa caagcttcac 240
agatgacatt gaaacaaacc ttacaaaaag atttccgtat gtcgatgcac tttatgaaag 300
gtcacgactt ttatgaaggc attcgagcaa ctttggtaga taaggataga aaccctaaat 360
ggcaaccgga caagttggaa caagttacta gagcaccggg agaagaatac tttaaaccct 420
tgaaagatat acccgac 437

<210> 4993
 <211> 295
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-053-Q1-E1-F10

 <400> 4993

 acgcgtccac ccacgcgtcc ggggttgagat tggttttctt ttcgtccacg cttcgttccg 60
 ttactttttg tcgtgacaag ttataatata aaatggccaa agtaaaccct gtgtcgtcgg 120
 ctctaaact aagtgttaact agagagatag ctatcggtat tgggcttggg atagcgtgtg 180
 ctatggtatt tcgccagtgg caactccgat acaccgaaat gataataaaa taataacccc 240
 aattggatga accagaacaa aattccccct cgtccttaaa accgccctgt gtttg 295

<210> 4994
 <211> 292
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-053-Q1-E1-F2

 <400> 4994

 gcgtcagccc acgcgtccgg atttctgttt gacgcgttc gtgtcccccac tttccctttt 60
 ttgtaaatct tcgaaaggct ggataggaca agcatcatta ttcaaggtaa ctcatgtata 120
 cgtggaaata atgcttctgt cgaagtttct tataccggaa attttaaaga aagacagtcg 180
 tttttgccag cgtcctttgc tagaagaagt ggctggctcc ctttgaggct aactcaacaa 240
 agcgactttg gcctgccagg aattattgaa tatttccacg agcttattct gt 292

<210> 4995
 <211> 339
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-053-Q1-E1-F5

 <400> 4995

 agggcttctt tgctttatgg aaagggtttt ggccgttctt cttccgtatc ggtccacata 60
 cagtcttgac ctttatattt ttggagcagt ttaaggcctg gtatttgca aagctcaact 120

aggcctttgt tattggcaag ctgaataaca ctaatacttg tcgtatccat ggagttgtaa 180
aaggtccaac gggtcgttta cgctcggtca gaatggattc tcacaagtat tgcgattttt 240
aattgttggt tcgagaaaaa attgtcagaa atttcagaga aacggattgg aataaatggc 300
aatttttgct atgaaaaagc tcaggctcta tctaacact 339

<210> 4996
<211> 416
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-053-Q1-E1-F9
<400> 4996

acgcgtcaga atggacgctc aaggttatgt tgtaccttca ctgacggtgg atgctgcagt 60
tgtacgaggt ttgaagccag cactagaaat tttattgggt actagaaaga aagaaccggt 120
ccagggtcgc ttggcttttc ctggagggtt ttgtgaatat ggtgaggatc ctgagcangc 180
agttttgaga gaacttgaag aggagtgtgg aatacgaggg acgagtcctt cgctcggttc 240
cgtccgtggg aagccaaata gagatcctag gaaacacgtg gtaacaatat gttactatgt 300
agaacccgca cagaaagact ctcagggtgaa agctggtgac gacgctgcgt cctgtgggtg 360
gtattctgtg gaaagtctta tgaagagtcc agaacttttt gctttttgac actacg 416

<210> 4997
<211> 455
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-053-Q1-E1-G4
<400> 4997

gtgcggtcag gaattcacgg gtcgacgcac gcgtcagccc atacgtccga tcttagtttc 60
agtgtacgca cgcaggttcg tctgaggggt tgcagttgtc acgagttgct tgcaatgtgt 120
cgcgacatgg gtttcttgag acagtgcgag gaaaccacac tgacgacgtc ggcccaaagc 180
tcggtttacg gcgtgtacaa cgaggacaat catttggtcc ttcaagcatc gtcagattt 240
taagcacggt tgaagtcgca ctgtagctct cagtaatgca tgggggttacc acggtacaat 300

tagcgatctc agaggcagtt agcaagcttt tcatcactgt tatgaaaact gttagttatt 360
accagaacgt gaagtcgaag tcaacgtcca ggtacacaat ccaaaaactcc aatcgatact 420
tgtatacaga atgatccacg gagcattcca catag 455

<210> 4998
<211> 292
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-G7

<400> 4998

cggtatagaa ttccccgggt gactcacgcg tcagcccacg cgtccgatgg aggtaaaactg 60
gtgttgggtt ggggtgtgaa ggcttggagt ctaaggacct ttacgagagc gtttctggga 120
ttcctggcgt tacgggtaag acttatagcg catcattcgt tacaggatgg acacagtacg 180
acttatgaca agacttgtgg ttttccatgg aataaaagta taattttttg taaaagtacg 240
acgtacgagg cccccctagt cgggaaccgg acgccggcgt gcgctcgcgc gt 292

<210> 4999
<211> 352
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-G8

<400> 4999

agcccacgcg tccggactag ttctgtattg attggctcta cgtctgccaa tagttttggt 60
accaacttga atattccatt gtatcaagat agtgcacatg gacccaaagc tgcgttgtgg 120
tatattgtct cgggatttgc gatatgttgg tctatcgtcg tcatgttttg gtttttcaga 180
cgcaacaagg ccgtgggaat atattgtcgt agggacaacg atgatgcac ctagtagcag 240
tgatagtaat agtaatagta gccagggaaa aacagagaga gaaagagggg caagcaacga 300
caaaaacaat ttatacaaat aaaccaagat gtttagcgaa aaaaacaaac ag 352

<210> 5000
<211> 394
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-G9

<400> 5000

gccgaccac gcgtcaggaa aagagaagag agctagaaag gaggtgagaa agcataggaa 60
gtgaaacgga ttaggaaccc gtgtagtcta tgcagtaaaa gaaagaatga gtaagaaaaa 120
agggagtcac tccaccaggg gagtaaaggc gcaagaaaga aacccaaagc aattgacggg 180
aatcggaaaa aggggtggat cacgtaaatt aatccgatat aaaccgagaa ccttacctct 240
ccaagaaggt gttgcacggc tgctgaaaga acgtgctgtg aagtgagaga acgtacgaga 300
aagccaagtg aggaaaagaa ggcaagtaga gggcggcccg agaaaggaga gggcgtaaga 360
cgtgatacag agtaggaaga aaagagaaga gagc 394

<210> 5001

<211> 237

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-H1

<400> 5001

ggtcaggaat taccgggtcg agccacgcgt ccgggagaat ggaagaggag gaggacgctg 60
cgtattattc acaaatagat aaggaagtag tcgagtctat ggaagtttcc gagagtgttt 120
ctgggtttcc tgcagagacg gagaagcctt atagaatacc aaactttaca ccattgactc 180
aagacgactt tgacgaagac ttgtgggttt ccatggaata aaagtatagt tttttgt 237

<210> 5002

<211> 403

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-H10

<400> 5002

gggccgacgc acgcgtccac ccacacgtcc gggaaccttc gtattatgtc atcaatgttc 60
ggacgcaaag cagagtacaa gagagttttt aaagttatgg ggttcaagtc catattctcg 120
cacgaaacac cgtattctct ggaaccagct tcagtttagc aagcgagcag agtccacag 180
aaacgacact tatgcacgta gactatttct aactatggaa aaaggggaag aacagaaatt 240

tgcatcacca gaagaagaaa gactggcaaa gaaacgtgaa gaagtggaaa gactgcgagc 300
 cgctgaaaag tttatacgta aagatgaagg aaaattcggt tgtcctgtgt gtgattatgt 360
 ctacgaacca agcaaaggag acagtttggc tggtatacaa cct 403

<210> 5003
 <211> 317
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E1-H11
 <400> 5003

accacgcgt ccgggaagac agcacgcaaa ccctggaaag cagtcaacga agaacgagac 60
 acgaacaaac tgagtatcac gaataaaaga tggagtagat caggacccaa agctcacgga 120
 agtcacagta agcgcaggag tcatgctaata gaaagcagga cagtatttgc tcaacagagt 180
 gtacagctcg tcacttttgc aaaatctccc aacgagtga cgaggaagcc acactattgc 240
 atcaccagta gccacgtgag acgccaagcc acttgatcat atgctctcca agcgaactac 300
 cgctgagtca tatacct 317

<210> 5004
 <211> 391
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-053-Q1-E1-H2
 <400> 5004

gcgtcagccc acacgtccgg gaaaacaacg tggaaactat cgacagaacc aacttaagtg 60
 tacctccaat agtgtctgaa cgtatgggaa agcgtatggt gtatgctgcc agtggtcctc 120
 tcaccttttt tgttctcctt tttgggtccc tattcgtggc aaagtttcag tttgatatta 180
 cttttatgcc atcggtagta gcgtatagtt cgttgttgc tattttttgt accatggcag 240
 cactgagtta tggatatttt tccgcctcgt gggacgtgga agacgaagga agtttctggg 300
 gttggaaaga gtttcgcata aatattgggc gtacggtaca aggggtcaag gcangtgcaa 360
 gaaaataatc tgagaatata taaaccatat a 391

<210> 5005
 <211> 441
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E1-H4

<400> 5005

```

gggtcgacgc acgcgtcaga aattgttgat gagaccgatg tttatatgga catgaagaca   60
aagaaacctg ttctcttttcg ggggtccagat ggtcgcctac atcgcagagc ttttatcgga  120
ccgaaaaagc cacataactca aataacaatt agagagattg acattggaac tttaaagcat  180
agttcgagcg acccaaactc atccgttagg agaaaaaagg cggtagaaaa cttcaataag  240
caagtgatgc gcggcgatat cgatgaatgg agtttgagga acctcgctta cactaccgat  300
gatattcaag gctatgagtc agattctgac gaggcacccg ataattcaag taatgtcaat  360
cagcactctc attcttatgc aactgcttcc aacagtagga acaggacagg ggaagagcaa  420
ggtaataata ccgaggcatt c                                         441

```

<210> 5006
 <211> 414
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-053-Q1-E1-H9

<400> 5006

```

ggtcaggaat taccgggccg acccacgcgt caggtaaadc gagtctcgtc ccaggcagag   60
acaggaatat catatattat aaatagatat atatattcat attcaaagat agatagatct  120
tgtttcgtgt angaatgtct gttctttctc ctctccgctt ttccgtcgca aggcaccta  180
gagtttgtcc accactgttg aaaaagtatt tttgtgtgga aagcacttca ggccttccaa  240
aaagtgaac tctttcaacc aatgttgctt ctagtgacaa tagactcaag gtaaactctgt  300
tctctacgag ttgttcttac tggactcttt tcagagtagc acggaggaag attctgttcc  360
tttgtatcgc aatcgccccg gtatccaacc acttcagact ccagttggct cgtt         414

```

<210> 5007
 <211> 385
 <212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-053-Q1-E2-A1

<400> 5007

taccggtcag gaattcncgg gccgaccac gcgtcagccc acgcgtccgc ccacgcgtcc 60
gccacgcgt ccggcatgat gaagagcgct atgaagttct ttgtatttag cattattttg 120
gcaaatgttg ttcttactat tcaagcagca acggtttttg agactttgga gtcactgaaa 180
tatacagagt atcttgacat ggtaaaggct gcaggcctgg actcgaagtt caacgactct 240
gctgttacat ggactgtttt tgcagcaaac aatactggag tcaatgccac cttggcacca 300
aagcacttgg ttattttctaa tatcacatct aatgcgacgg agagcaaaga cattgtggaa 360
tatactttgt acaaccatac tcctt 385

<210> 5008

<211> 450

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-A12

<400> 5008

gtctagaatt accgggtcga cgcacgcgtc cgaggagaga gaatcatgaa gtagaggagt 60
atgggtgata gtggtagtgg ggagtataat aataaggagt atatgaggat atggagagga 120
gagtataagg agatggatac ggtacagtac gataagtcag atgggatata tgtaaatggg 180
aatgagtatg ggtaataaag aggagagtgt agaattattac ataagtgtat acagtgtaat 240
gatgatggtg atattacgat ggtggagtga gaagaggagag aggaggatga acgagttagt 300
aggagaagga aagaggaata gtgtaaagag tataatgtta atgataacga tgtattcgat 360
gatgggaatg ccagtaatgg caggattttg gagtaagtat agggtaatga tggagagtgt 420
aaggagtgga gagtattcga tggggatagt 450

<210> 5009

<211> 406

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-A4

<400> 5009

acgcgtccac ccacgcgtcc ggaaacaagc attggaagaa aagaatctat gcaatgaata 60
ttataagaag aaacaattcc aacaagctat cgaacattat aacaaagcta ttgaattgga 120
tccttggaaat ttatcttatac ttacaaacag agctgctgcc tatttagaaa tgggcgagtt 180
ggatagttgt attgaagact gtcagaaaagc agtggattgg aacaaggaat ataacttgag 240
aacagattat aaaataattg ccagagctta tgcaagaatg ggcaatgctt atgcaaagaa 300
acaagattat gacaaagcaa tcgaatgtta tgagaaatcg ctgttggaaat atcacgacga 360
caaagtatat tcgaaatgta acgaaatgaa gaaactcaag aagaaa 406

<210> 5010

<211> 383

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-B3

<400> 5010

acgcgtcagc aacataggca tttcatctat tcaatgggtt gaagctggtg aactatatga 60
aacggaagtg agaagcatat gtgcggcatg gtcggcattt tggatatttg ctagtgcttt 120
tgtcaataca tatacattta tcaaacaagt cgatgcagtt ggagtaaagg gcctgtatgg 180
actatataca gggtttactg tgttcttcat gatagtcttg ttcttcatct ttccagagac 240
aaaaggcaag acattggaag aagtgaaaga aattatggaa tgagggtttac cattcattat 300
tcataagaat atcgtagatg catggaataa cgtcaagtat ttgttctctt ttggtaaaca 360
ccaatccaga tccatagaac ctt 383

<210> 5011

<211> 403

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-C1

<400> 5011

ggtcaggaat taccgggccc acccacgcgt cagcccacgc gtccgacaca caaaaagaag 60
aatgtcgacg acgcttattg aaaagaatgt ggttcaatga cttgagtact tttccagtga 120

cgtattcgggt tcttctttta tgtgtcatta cttggtaata agatatgcct gttgggtgact 180
 agttaccgag ttgttactag gttgtttatt acttatcaag gttgggtctta tgatatcggt 240
 ggttgtaact acgatcgagt tgttatatat aaagaaactt ggcatggat taaaaaaaaa 300
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa tatttaaaaa aaaaaaaaaa aaaaaacaat 360
 caaaaatcat aaaaaaaaaa aaaaaaaggg gggccgcctt aaa 403

<210> 5012
 <211> 454
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E2-C2
 <400> 5012

taccggtcta gaattcccg gccgaccac gcgtcagaga gaagagagaa tgctgggtgg 60
 agtagcgaaa caagagaagg gaagtaaaag gtaagaaaga ggaaagggtt acgagagaag 120
 gaagtagaaa gaagagagtg taaggcggcg tcataataga aatccgaaag gagtagaaga 180
 aaagagagag aagaaagaaa agaagagaaa agccgtactg aagaccgaca caggtagctg 240
 aggagaaagg agacccaaat taagggtgaga gaatggacga taaggaaacta ggcaaaagga 300
 tatggtagct gcggtagaac atatgaaaga agcagcaccg actgttttagc aaaaacacag 360
 cactctgcag aaaagagaaa atgtaaagta tagagtgtgc ggcttgccaa atagtagaga 420
 agaaatcgat gaaagtgaag gcgagtaaaa gatg 454

<210> 5013
 <211> 290
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E2-C9
 <400> 5013

gacgcccgcg tccgtaccga aactgtgaat gatttatgtc cgtatccgct tattgaaaac 60
 aaggaaaaag gtccagtttc tttttgttct atttatggtc caagcggcga ctgtttggat 120
 catatttggg ctggagtgtt gccagttttg aatattcacg actatatttt ctttccaaag 180
 attggaagct ttctatcctt gggtttacgc gaatttaatg acttttcacg caaagtagat 240

actcggttata tcggttacttt gtgaataaaa aacaacgagt tgtttttattc

290

<210> 5014

<211> 441

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-D12

<400> 5014

gggtcgacgc acgcgtcagg tgagagaaat tcacttcctt agtaactatg cgatgttaat 60
tttgagtttc acatttatag gaaatttctc taaaattgac gattttcttt tattttttta 120
aagttgttta aaaataattt caacaggtat ccaaggttct ttttatagtt cttgtgattt 180
gccgtacttg ggtgggattg gtttatgcga ggggcgtctg ttttattcga tgcccgttcc 240
caagttcctc gtcagctcc ttattgtggg cggtacatac ttatttcgtg cgtttcttga 300
agcttacagg caggctctgt acaacgctca agtaagaggc actgcagcgg gagcagcagg 360
tcaagttttt cgtgaagaag gaaaaatgtc cgtcgaagaa gcttgtaata ttttaggagt 420
atcaaaaggt gattcttggg a 441

<210> 5015

<211> 446

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-053-Q1-E2-D2

<400> 5015

acgctggcag gtgaccggtc aggaattacc gggccgaccc acgcgtcagc ccacgcgtcc 60
gcccacgcgt ccgagatggc tgtttggctt ggggaagctg cctgtacgat cgtatttacc 120
acttagggaa tatagttctc attgttggtc agagacggaa agaataattc ggagcttcaa 180
gattagtttg gggatatacat aaaaagttcc gagagaccat tggcaacgaa ggaaaattga 240
gaagagattg gaatgggcgc gaaacgataa gattcttgcc aactagagtc gatgcaacca 300
ttaggaaaga ttgtgctaga ataataccag cgaacaaagg agtaaataat gtttgatgag 360
agaaaagact caagaagtct atcatcgcca tatcatagag ctgataagtc aatcactgtg 420

tcnttaagaa aaaacaaatc tcttgt

446

<210> 5016
<211> 432
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-D8

<400> 5016

agccccacgcg tccgcccacg cgtccggaat ggacgataag gaactaggca aaaggatatg 60
gtatctgogg tagaacatat gaaagaagca gcaccgactg tttagcaaaa acacagcact 120
ctgcagaaaa gagaaaatgt aaagtataga gtgtgcgggc tgccaaatag tagagaagaa 180
atcgatgaaa gtgaaagcga gtaaaagatg aggtatagag aatggcggtc ctaactgtaa 240
ggatccaaag gtagcgaagt aaatagacgt ttgaaaggcg tccagtatga aaggagaaac 300
gagtgtagca ctgtctagtc gtccaactca gcgaaacagc aataactgtg aaaatgcagt 360
aaactagcag taggacggaa agaccccata attcttgact agataggttt agggacgaga 420
gagaatcatg ag 432

<210> 5017
<211> 427
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-D9

<400> 5017

cgtcagggtg aaatatccca tcagctttcc aaccttctcc acgcggtata cgagtgcgaa 60
tataccgagg tggagtggct accttgggtt tgttggtcag aactgtcga aaacgcaata 120
gtatgggaag acatactggt gcttcaaggc gccaaactgc tggatatatta tgctgaagga 180
ttacaactgt tcaacaagtt tcgtcgtcac ctgatgaacg tgcctttgt gggagacagc 240
aaactatggg attcactatc tcgtttcttg ctgtttatcc aaccgagtca ttccacttgt 300
tggaactttc gaaagtttct cgttcaacac catcacgctt cctatcttat ggagctaaaa 360
gtgagtgaag ttgccgttga agagagatgc cacagcaagc caggcttggc accatagaaa 420
gtggttg 427

<210> 5018
 <211> 327
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-E4

<400> 5018

```
accacgcgtc agcccaagcg tccgctttta tgaaatggca agatgctagc aaaaagtcaa 60
tcggcttggt caaggtcag agtgaataat gtcactgggc atttgatgta atttcgaatc 120
tcatacagtg ttggccattt catagggcaa ataatgacta agagtttatc gaaatcattc 180
caccaaggga gtaaaggcgc acgaaagaaa cccaaagcaa ttgacgggaa tcggaaaaag 240
gggtggatca cgtaaattaa tccgataaac cgacaaccgg acctctccaa caaagtgttg 300
cacggctgtc tacttaacgt tcagtga 327
```

<210> 5019
 <211> 362
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-E6

<400> 5019

```
gtcaggagtt cccgggtcga cccacagcgt ccggacagag ctgccacaga gctacttggtg 60
aagactgccc tcgaagatca cggactgaac tttgatccct tagatactga caaggacctg 120
gtatatcctg agaaatatta tgagccttgt ggaggcgaaa tgtggatcct tgagcacgat 180
aacacagtgg ttggctgtgc tgcctttttg cctattcctg atacgtgtgc ggtagagttt 240
cgaaagatgt acttttctcc gaacataaga cgcaacgggt atggaaagct aatacttgga 300
gccttagagt atccagcctt tgagttggga tacacatagg gtacattgga aacgtcgcac 360
ct 362
```

<210> 5020
 <211> 451
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-E8

<400> 5020

gtcaggagtc cccgggtcga cccaagcgtc cgagaatgga gtggagaagg aagaggagac 60
actagtccaa gttcggatcc attaaactttt accaaacttt atgtgggttc tattcacttt 120
tctattagtg aagaagattt acgcactatt tttgagcctt ttggggaagt cgtttccttg 180
cagcttcaca aggaccctga aacgggacgt tcacgagggt ttgggtttgt tcaatacaga 240
aaccacgaag atgcgaaaaa ggcattggaa caattgaatg gacttgatct tgctggtagg 300
cctttaaagg ttgggttggc aactgcagag actcagaaac ttcaagtaat ggggtgctatt 360
ccttcgggag ttcctagtac aatagctgcg aggagcttat caagtagggg ttatagtgca 420
tatattagtg aattggatga aggtggagat a 451

<210> 5021

<211> 409

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-F2

<400> 5021

gacccacgcg tcagccacg cgtccggatt tctgtttgac gcgcttcgtg tccccacttt 60
cccttttttg taaatcttcg aaaggctgga taggacaagc atcattattc aaggtaactc 120
atgtataggt ggaaataagg cttctgtcga agtttcttat accggaaatt ttaaagaaag 180
acagtcgttt ttgccagcgt cttttgctag aagaagtggc tggtccctt tgaggctaac 240
tgaagaaagc tactttggct ggccaggaat agtgaatatt gccaagagct tattctgtta 300
tattgtttct cagttgagag aattttcagc aagctcagca tttgttgctt gtaaaaaggg 360
acttgctaga agcaatttat ttgactccag agaaaagttt gatatcaac 409

<210> 5022

<211> 459

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-F9

<400> 5022

gcggtctaga atttgccgggt cgacgcacgc gtccgaatgg acgctcaagg ttatgttgta 60

ccttcactga cggtggatgc tgcagttgta cgaggtttga agccagcact agaaatttta 120
 ttggttacta gaaagaaaga accgttccag ggtcgcttgg cttttcctgg aggttttggt 180
 gaatatggtg aggatcctga gcaggcagtt ttgagagaac ttgaagagga gtgtggaata 240
 cgagggacga gtccttcgct cgttgccgtc cgtgggaagc caaatagaga tcctaggaaa 300
 cacgtggtaa caatatgtta ctatgtagaa cccgcacaga aagactctca ggtgaaagct 360
 ggtgacgacg ctgcgtcttg tggttggtat tctgtggaaa gtcttatgaa gagtccagaa 420
 ctttttgctt tttgacacta cgagttggtg caacaagtt 459

<210> 5023
 <211> 463
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E2-G1
 <400> 5023

gtccagaatt accgggccga cccacgcgtc aggacaatgg ttgcaaagac tgctctgagt 60
 tgctcttttc tctctttcct tatcgctgcc gcagttgcag ccgacgtagt ttcagaggag 120
 agatggggat atgctcagca aaccaacaa cagcaacagt gccacaagt atgtaaacag 180
 tatgcatact atcagagtcc agtctgcact tccgtaacca cacagagccc atactggacc 240
 caatgctcga agactgtgca aacctttgtc ccaagccagt gcagtactta tacccaatct 300
 cctacatgga cctattgcag cacctacacc accactagcg taccatctca atgcagcaag 360
 gccgtgacta cctatactca aacctgctgt gcttatgcc aacaaacttc ctatgcagtc 420
 agtaccgagc aatatgttca ggaaactgta tctgctcaat ata 463

<210> 5024
 <211> 257
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-053-Q1-E2-G4
 <400> 5024

cgtcagccca tacgtccgat cttagttcca gtgtacgcac ccatgggttcg tcggagggtt 60
 tgcatttgct acgagttggt tgcaaagtgt cgcgagtgag gtttcttgaa atagtgcgag 120

aaaacctcat tgacgacgtc ggctcaaagc tcggtttacg gcgtgtacaa ttaggaccat 180
catttgggtcc ttcaagcatc gccagattg taagcacgtt tgaagtcgca ctgtagttct 240
cagtaatgca ggggggtt 257

<210> 5025
<211> 449
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-053-Q1-E2-G9

<400> 5025
ggccgacgca cgcggtccaga aaaaagaaga gagctagaaa ggaggtgaga aagcatagga 60
agtgaacggt attaggaacc cgtgtagtct atgcagtaaa agaaagaatg agtaagaaaa 120
aagggagtca ttccaccagg ggagtaaagg cgcaagaaag aaacccaaag caattgacgg 180
gaatcggaag aaggggtgga tcacgtaaat taatccgata taaaccgaga accttacctc 240
tccaagaagg tgttgacagg ctgtcgaaag aacgtgctgt gaagtgaag aacgtacgag 300
aaagccaagt gaggaagaagg aggcaagtag agggcgggcc gagaaaggag aaggcgtaag 360
acgtgataca gagtaggaag aanagagaag agagctagan aggaggtaaa agaagagtaa 420
aaggactaga agaggtacgg aattcacga 449

<210> 5026
<211> 440
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-053-Q1-E2-H10

<400> 5026
gccgacgcac gcgtccaccc acgcgtccgg gaaccttcgt attatgtcat caatgttcgg 60
acgcaaagca gagtacaaga gagggtttta agttatgggg ttcaagtcca tattctcgca 120
cgaaacaccg tattctctgg aaccagcttc agtttagcaa gcgagcagag ctccacagaa 180
acgacactta tgcacgtaga ctatttctaa ctatggaaaa aggggaagaa cagaaatttg 240
catcaccaga agaagaaaga ctggcaaaga aacgtgaaga agtggaagaa ctgcgagccg 300
ctgaaaagtt tatacgtaaa gatgaaggaa aattcggttg tcctgtgtgt gattatgtct 360

acgaaccaag caaaggagac agtttggtg gtatacaacc tggaacatct tttgaggctt 420
taccgatag ttttcgttgt 440

<210> 5027
<211> 308
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-053-Q1-E2-H5
<400> 5027

aattcccggt cgcacccaag cgtcagggtca ctggaataac aatatattac aaattgcatc 60
tgtttgggtat gagcgtttca aagcttgata aagagattca agttgcttcc ttttgaaaaa 120
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa agaaaaaaaaa 180
aaaaaaaaat aaaaaaaag ggtgaatgta aaagcaaata aaaagcacat taaaaatgaa 240
aataaaatta aagacaatgg ccataaaaaat gaaaattgctg gaaaaggga aacacttaaa 300
caaaacaa 308

<210> 5028
<211> 441
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-053-Q1-E2-H9
<400> 5028

attcacgggt cgacgcacgc gtccagtaaa acgagtctcg tcccaggcag agacaggaat 60
atcatatatt ataaatagat atatatattc atattcaaag atagatagat cttgtttcgt 120
gtaggaatgt ctgttcttct ctctctccgc ttttccgtcg caaggcatcc tagagtttgt 180
ccaccactgt tgaaaaagta tttttgtgtg gaaagcactt caggccttcc aaaaagtga 240
actctttcaa ccaatgttgc ttctagtac aatagactca aggtaaatct gttctctacg 300
agttgttctt actggactct tttcagagta gcacggagga agattctgtt cctttgtatc 360
gcaatgcgcc cggatatcaa ccacttcaga ctccagttgg ctcgtttaat aagcagcaag 420
taattcccaa tgagaatcac g 441

<210> 5029
<211> 416
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-A10

<400> 5029

ggtaacggtc aggaattccc gggccgaccc acgcgtcagc gtgagggtag ttcacatcatgg 60
ttgagacaaa acttcaagat ggtgttagtg cttctctttg gactgttcgt ctcttcctct 120
acacagttat tttagcattc tctgccacta tcattggcctt ggatggacgt aaagcagaca 180
acatatggaa cgacagctta ttctatgatg ggaagtacat taacttttgt gcttattctg 240
cctcttctgt tgtagaagga ggggaccatg gagcgtgtaa atatgtcatg gcgttggcgt 300
ctataagttt gattctagtc tttttcttgt ggctttttac atttgtagat gcgttgtatc 360
ctattcttac caagttttgg tttattgaat tgggtatcaa cgtgtttcaa acaatg 416

<210> 5030
<211> 400
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-A12

<400> 5030

gtcaggaatt cccgggctac cttttcggtt gtattgaaga atcattttcc ggaatgtgag 60
caacaactag agcaatggtt ggtggatacc tgtgggatca aggaaacggg tgaagatttt 120
tatatgcgtt ggaacgagca acacatgtct tgggtgcaac ctttggaga aagtcaacga 180
caatggttgc aaagattgta ttccacagca ccgattgtac aattgcaagg gaagatagag 240
gagttggaag atattcggat tcaagtgagt tggaaagtat cgctatccta tgataagcaa 300
cgcagtcttt ggtggaatca gaatagcaac aaaagagcca gtcgggaaac ttggtatatt 360
ctactgggta aatacaacac tgggaaaata agtgcttttc 400

<210> 5031
<211> 183
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-A2

<400> 5031

cccaagcgtc cgcccatgcg tccgacaaat tcccaaacgg agttgagctc gaagacttca 60
aacgggtcttt gtctgcaggg aaactatcca aaactaaagc aaagttctta taaaaaaaaa 120
aaaaataaaa aaaaaaaaaa aaaataaaaa aaaaaaaaaa aaaagaaaaa aaaataaaaa 180
ata 183

<210> 5032

<211> 311

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-A5

<400> 5032

gaccacgcg tcagcccacg cgtccgccc cgcgtccggg atgccatcct tattggtaca 60
agtagcctat tgtattcatg atgtgccacc tatacttacc tgtgtacgca ctatgttctc 120
cgagttttgg agaagtcac acgaggaatg gcccaaaca aagcaaagt tgcaagccga 180
tcaaagagaa gcgttgaatg aattgctcat cgcaccaagt tattatgctt gaatcggtgc 240
cctcctccat aaaacccatc tcgtggcatt tttttttaa aaaaaaaca aacaaaacat 300
aaaaaagcaa g 311

<210> 5033

<211> 421

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-A6

<400> 5033

ggtaccggtc aggaattccc gggccgaccc acgcgtcagc ccacgcgtcc gccacgcgt 60
ccggaaagaa agaaagataa gtgaatatca tatggtggat gtgagtccat ggccaatact 120
gacagtagta gcattgatgg gaatattgat aggaatgata gattggatgc attcgatggg 180
taagaggata ttgataatgg gagtaataag tatgttgatg agtatgtatg gatggtggag 240
ggatgtaata agggagggag tattagaagg tccaaacaag agaagtcagc agtggggaaa 300
attgggcaat gtacagggaa gtatgaccca gtaatgagga gtggagtaaa cagaaaagga 360

agtaaaagga gggaatgaag ggaagttatg gcaaaaacac gtgccagcag cagcggtaaa 420
a 421

<210> 5034
<211> 412
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-A7

<400> 5034

ggtaccgggc aggaattccc gggccgaccc acgcgtcagc gttgtctcga gacgtaattt 60
gtcgaatggca atgtctacta ccaagccaaa agtacttgcg ttgtatcgac atatgttgag 120
atgtattaaa actttacccc cacaagtaca gccttactac agatactatg tgagacaagt 180
atgtttttttt gtttgttggt caacactcgt tctctcttac ggtacttttag caattcaata 240
gtcacgcaga cgagatagaa gaagaaagag tggaagaaat catatccaag tctcggttctt 300
atattccgta tatattagac aaggtaagtt tgtgttttat ttgctgtgaa tattttctcaa 360
aagacttgca cagtacaata gtaaaccacc tagctaagac tttcgtggac gt 412

<210> 5035
<211> 415
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-054-Q1-E1-B1

<400> 5035

ccggtccgga attaccgggt cgacgcacgc gtccgtgctt tttgtacggt tgacaattgt 60
cgtcaatcac cttcgggata tgatcaacga gtggaagttt ttgggttcaa aggcctcggt 120
cgttttggga acaactttcc caataatgtc tttattgaag atgcgcagtc cgttcgaaga 180
agtgatcttc cctttaactt ctttatggat cgttataccg aagcttatcg taatgaaacc 240
aaacagtttg ttcaatgtgt cttggaaaac aaagaacctc cgacaagtgg tcgagatgga 300
actgctgcaa tggcaatggc aattgctgca aaaagagttt gttggggaaa agaaccgtta 360
aaacttacga aaattacccc ttngaaataa taaaatggtg ggtttatcca ntctg 415

<210> 5036
 <211> 406
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-054-Q1-E1-B10

 <400> 5036

 aattcccggg ccgaccacg cgtcaggtgg gaaacatgtc gaagaagcct tctggaagac 60
 tttattgtaa aggggtagtg ttgggttata aaaggtcaca acggaatcaa taccctagtc 120
 aaaccagaat caagatacag ggagttgaag atcgagcttc gacagcgttt tatttaggaa 180
 agcgtgtggc atatgtttac cgtgcaaaga gaccaagaaa gagtgttggg ggaaagaaaa 240
 caaagattcg agtgatttgg ggaagaatta ttgcaccaca tggtaataga ggagtagtac 300
 gtgccaaagt tcgaaacaac ttgccacctt ctagttttgg caaacgagta agagttatgt 360
 tgtatccaag caacgtataa acaagtgcct taaaatttta atcttt 406

<210> 5037
 <211> 254
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-054-Q1-E1-B7

 <400> 5037

 acccacgcgt cagatcggtg ttgagatatg cgaacatcca tcacattcac ttgttggaca 60
 ccgttgcacg gaacttcatt gaacgtaatt tgctcgtcta gtttttgcct aaacaactct 120
 attccgtacc acgctaaca cataaggagt tgtgtatttc cgcagaccat ttatggaaca 180
 cctgtcgaga tgcacaagct agaagtggat gcaaaccaga tgcgaatgca ttttggatca 240
 gttcccaagc aggt 254

<210> 5038
 <211> 415
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-054-Q1-E1-C1

 <400> 5038

gggctcgagcc acgcgtccat ggaagaagag tcttatatcg atccccgattt atccaaagtt 60
 gcgaaagaag aaggaaataa tttgtataaa caaggccaat ttccagaagc cctgcagaaa 120
 tatacggaag caatcaaacg caatccaaag gatccagttc cttatagtaa tagagcagct 180
 actttgacca aactaggaca attcccttct gcttttagcag attgtgaaaa atgtttgcag 240
 ctagatcctc aatttgtaag agcttatgcc agaaaagggtg ctattcattt ctatatgaaa 300
 gaatatcata agagtttgga tgcctatcaa caaggacttc aagtggatcc taataatgca 360
 gaattgaaag aaagattgca gaaaactttg agtgccaatt gcaaacaaca acgct 415

<210> 5039
 <211> 336
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E1-C10
 <400> 5039

ggtaacggtc aggaattccc ggggtggacc gcaaatacaa gcattcaagc acctctttat 60
 tggatatcat ttctatggac aaggtagaag aactaaagtc actggtcaat tccgtggaag 120
 aagactgcaa taaattttttt gagaacggaa acaagtcagc tggagttaga gcaagaaaga 180
 acttgcaaga aatcaaaaaa cttgctcaag aactacgcat agagatacaa ggcacgaaac 240
 aaactgaaaa gtgatacttt caactgtgca gaatcaacca tggcttgtga aactattcca 300
 gttttttcaaa taaatacctt ttttcgtttg taaaag 336

<210> 5040
 <211> 390
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E1-C11
 <400> 5040

ccgggtcgac ccaaacgtcc gccacgcgt cggattctga gtaaaaaaga gccgggttac 60
 ttcacgaaag aacatcgga atgccgctcg acggaaatat aattttcatt gttgggaatc 120
 gattttgcgc aacctttgca tcccctaattg gttggtagag acggcggaag agcgaagcct 180
 ttgaagaagc caaagcctac ttcgaaggaa ctgacggagg aggatttgga atttaagaaa 240

agacaaaagg aggagcaggc caagttgaaa gcagctcaac agcagttgaa aggaaagggc 300
aagaagtgac tttgcttcta cgagttagct aaacaaacgc tttatttggt tctacaacta 360
ttcgggtact ttttgatagt ttccgtgaac 390

<210> 5041
<211> 334
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-D1

<400> 5041

ggtcagaatt accgggtcga gccacgcgtc cgtgcaaacg tccgatgaac ctcaacaagg 60
tggcagtaat ggagcatttc aagaatttac aatgcttggt tgactatcaa cacattgata 120
ggatgaatata tggtgaatata taggataagt ttacaaaaga ctcaagtcca tcgaatagaa 180
tcctagtggc atcaacattg acatccgatt ggattctggt aacatatata gatcaaattt 240
cattggaaaa cagccgtact gatgaccgat acacgtacat ccagatatcg gcgaccact 300
ttaaagttag atattggtcg ataaggaact aggc 334

<210> 5042
<211> 417
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-D11

<400> 5042

ggtcaggaag tcccgggtcg acccacacgt ccgattcatt gcggatcgcg tttggggctt 60
gtaacagtca ccatgaagta ttcccaagtt gtatcgctcg ctagaagaaa gcagaggaga 120
gcatacattc aagcaccatc gtctgtacga cgaataactca tgagtgcac cttgtccaag 180
gaactacgta tgatatacag gggtcggttct ttacctatgc gataagaaga cgaggtaatg 240
atagtacgag gagctttcag gggtagagat ggacaagtca caacgtgtta tcgagggaaa 300
tatcggtac agatcgagag agtgaccaga gaaaatgcga atggaatgac tgtagctgtg 360
ggaagacatc catcgagtgt tgtagtacc aggtgaaagt tggacacgga caagaat 417

<210> 5043

<211> 327
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E1-D12
 <400> 5043
 gtcaggagtc ccgggccgac ccacgcgtca gattctgtgc gaggagcgtg aggggcatgt 60
 agtaatgacc atgaactatt ccaaggttgg atcgctgtct agaagaaagc agaggagagc 120
 atactttcaa gcacgatcgt ctgtacgacg aatactcatg agtgcatgct tgtccaagga 180
 actacgtatg atatacagcg ttcgttcttt acctatgcga tcagaagacg aggtaatcat 240
 agttcgcgga gcttttcaggg gtagagatgg accagtccca acgtgttata gaggggaacta 300
 tcggatacag atcgagagag tgacccg 327

<210> 5044
 <211> 379
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E1-D2
 <400> 5044
 acgcgtccac ggaagcgtgg gttttgcaca aaatattcga cgtcgccatt gagcagccgt 60
 gatgggacgt gtaatacagag gccagagaaa gggagccggt agtgtatttc gtgcgcatgt 120
 cgtcgaatga aaaggagcag ccaagtttag agcgttggat tatgccgaaa gacacggata 180
 tctaagagga gtcgtcaggg aaatcatata cgaccagga agaggagctc ctttggctcg 240
 agtggaaattt agggatccgt atagatatga gagaagagta gagactttta gtgcaccaga 300
 aggtttatat acgggacaat tcctgtactg tggaaagaaa gcccaactaa gcaatcggta 360
 aagtccttcc acttggttc 379

<210> 5045
 <211> 392
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E1-D3
 <400> 5045

acgcgtccac ttttatctct tgtagcacia acacaaatta aagaacaatg cgtgaggtta 60
 tttctctaca tatttgtcaa gcaggtgttc aagtagcaaa ctcttgctgg gaactttatt 120
 gtttagagca tgggtgtcaac gctgatggaa ccattgataa aaagggaaac acagcaaacg 180
 aagaagcttt tggtagcttc tttaccaga caagctcggg acgatatgtt cctcgttgtg 240
 tacttgctga cttggaacct tctgtcgtag atgaagtccg tacaggtgcc taccgccatc 300
 tctatcatcc agaacaactt atttccggca aagaagatgc tgcaaacaat tatgcaagag 360
 gacactatac tatttgaaaa gaaataatcg ac 392

<210> 5046
 <211> 306
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E1-E1
 <400> 5046

ggtcaggaat taccgggccc acgcacgcgt ccaccacac gtccgcccac gcgtccgaga 60
 gtttattcat ttacctggcg atgtgttttc caatccgcat ccaatgcagg ctataggaca 120
 agttcctgtt gctggctggg tacaaatatt tcttctgtt gccattcttg agatgataga 180
 catagcagct attaaggaaa cctccaggg aaatagagag ccagggtatt tcggctttga 240
 tcctctgggt ttggcaaacg acaaacaggc tcatgatcga tatcttttgt cacaactgaa 300
 gaatgg 306

<210> 5047
 <211> 209
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E1-E5
 <400> 5047

ggtaacggtc aggaattccc gggccgaccc acgcgtcaga aaaaaaaaaa aaaaaaaaaa 60
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120
 aaaaaagggc ggcggcccga caggctccag gcttaaatcc tcgttcatgc tacatcaaac 180
 ctcttctatc ttgtcaccta actccaatt 209

<210> 5048
 <211> 188
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-054-Q1-E1-E8

 <400> 5048

 atcacttttt cctacactgt atcacgtcgt acgccgtatc aaagaagggtg ttgcacagat 60
 gtcaacagaa agtgatgtta catgagaaaa cgtaacaaat acgacagtga agtctggact 120
 gcaagtaaag ttcagcggaa cagatgaaag ggcgtactac atcattcaca atacagcgta 180
 ccgtcctg 188

<210> 5049
 <211> 446
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-054-Q1-E1-F10

 <400> 5049

 gtcaggagtt cccgggtcga cccaagcgtc cgcgttccga ttgcaattgc acttgaagag 60
 atttgtgtgg ttctagttg ttagtgtttg tgtggatgtt ttatggggaa ccaaaactcc 120
 tctggagtat tttaccgga aatgtcttat cgtataggag gtactagaag tggttccgaa 180
 acttttcgta accacagtga tgcttttttc tccaacaacc aaccctttgt agacaatgta 240
 tatgtttttg aaactcctca aggagtggca gcaacaaaca atataccttt tcaactcttca 300
 gaaagaacat atcggggaca gaggtccgtt tctagggcca atcttgtctt ggaagggtcag 360
 cctccaagta accaacagct gcctttctca caacagggtta gttgatgtat gccttgctcn 420
 cttcgatagt ttctgatata tatata 446

<210> 5050
 <211> 403
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-054-Q1-E1-F3

<400> 5050

gggccgaccc acgcgtcagg ttcgttcaga tctccgcagc ttaacgatta ttgtggattt 60
ttgttgcaag gtctctttat aagaaaagac taggattagt ttatacaaac gacagcaaac 120
tttgtatctt tttgttcctg ggtaaatfff ttatctccta gtgggttggt agctangaaa 180
agggttgggt taaagctgtg ttaccttgag aaggtaacaa atatccactc ctctacttag 240
tctgtttgta aggcttactg ggagaaactt ggtgaaactt ttcacttgta tgttggtgctt 300
ggtcgcctca cagtcgaata ggctctgaac ctgggtgaagc tattttgagt aaagagaccg 360
atagtaaaag agacagtccc gcaccctcat ggagaaatgc ttc 403

<210> 5051

<211> 398

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-G12

<400> 5051

ccgggtcgac ccaagcgtca gattttgggt ctccgacatc gaacattccc tcaagtgaga 60
gatattgcag gaatgtgaaa aattgactgt ccagagttg aacatagcaa cgtatcaacc 120
atctggcgaa cttttgatgg tcatgggtact tatcgaaaga atctcgagac taaccttcgt 180
acaatagata tcgcagattc tagctggtat tatgcaagtg cagaggaaga tacctccatg 240
tcaatctgta cagaaaaatcc ccaagcagat aattcactag cttcgaaact tgagttcaag 300
atatgttggt gagttacgtt actctcgtcg attttccgag attccatatt ggatgatcga 360
gcgattggat gtgcatagag acgctgtact ccaggctc 398

<210> 5052

<211> 122

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-G2

<400> 5052

gcgtcaaatc ggacacagga gcacggact tcatgggtgt aggaaccgag tcagccagaa 60
caaatgacac ggaattactg agggacgctg acggttacgc accaaagtga aacggtagtc 120

<210> 5053
<211> 392
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-G9

<400> 5053

ccgggctcga cccaagcgctc agagcggatg cagaaattgc agttcgtaat ggagtagctg 60
gtattattgt gagcaatcat ggagcaagac agttggatac ttctcttgcc actattgatt 120
gtttggaaaa agtacttgca ggtgcacaag gcaaagtcc tgtgtttgta gactctggag 180
tacgtcctgg tacagatata gtgaaaagtt tggcacttgg tgctcaagct gtacaaattg 240
gtcgtggtgt cttgtgcggt ttagcagttg gtggggaata aggtgtggat cgagtgttga 300
agttgcttcg tgatgagttt gagttggtac tgggactttg tggctgtcat agtgtcaaag 360
atattcgtag agatatggta atcagaaaca ca 392

<210> 5054
<211> 368
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-H10

<400> 5054

ccgggtcgac ccacagcgctc cgcggacgcg tgggcgagcg cgtgggcgga cgcgtgggtt 60
cctagtggta tgtttacaga ggagattgat cgatatactg gtttcgagca aggagctatc 120
aatttaactt ggagttatga tgcctttggt actgcggttt ggtcaagaga agatgttcac 180
aagttgtttt ctaaattattg tgaacctcct tctccacctc tacctagtat gccaggacct 240
ggtggtttat cttctccata ataagggca cttgtgcact ttggatattt ttgtggttca 300
cataaagaca agctttatta agaagcacac agaagaaaaa atcagtacaa ttgtaacaca 360
atcgcaac 368

<210> 5055
<211> 409
<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-H2

<400> 5055

gggccgaccc acgcgtcagg tgggaaagag gacgttggac gggcattgtg gaagagcgtt 60
ttggttcctg gatagctcat gtggcgaaca actcttgtcg ccttgtaaag acgataccct 120
atacacaggg taatgcaaaa aagttttgcc gatcaagttg cacaatcgac atacacaacc 180
atacgtgggt ttgccacacc tacacatgcc cttcgatacg acgcccacgt ggctatggta 240
atgttcccag catctactgc aatgaatggc gtacttcctc aacatgtgcc tacagctgct 300
caactgaaac ctgcagtggg gactgtccta gaatatggca cagatgacaa atattttgtg 360
agtagtggat ttgcctttgc taccaaagca cgaatagata ttttggctg 409

<210> 5056

<211> 264

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E1-H3

<400> 5056

cccacgcgtc aggacttggg aaaataaagc aaggagatcc actcaatttg gagactatgg 60
tgggagctca agtatctact gaacagatgg ataagattct tcactatgtg gaattgggaa 120
agaaggaagg tgctcagtgt attgttggat gaagtggaaa gaaagctatt ggacgtgatt 180
tcaaaggtgg ctattacatt gaaccgacaa tattcaaggg agataacagg attagaatat 240
tccaggaaga gatatttggg ccat 264

<210> 5057

<211> 436

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-A10

<400> 5057

aattaccggg tcgacgcacg cgtcagcgtg agggtagttc atcatgggtg agacaaaact 60
tcaagatggg gttagtgtt ctctttggac tgttcgtctc ttcctctaca cagttatttt 120

agcattctct gccactatca ttggcttga tggacgtaaa gcagacaaca tatggaacga 180
cagcttattc tatgatggga agtacattaa cttttgtgct tattctgcct cttctgttgt 240
agaaggaggg gaccatggag cgtgtaaata tgtcatggcg ttggcgtcta taagtttgat 300
tctagtcttt ttcttgtggc tttttacatt tgtagatgcg ttgtatccta ttcttaccaa 360
gttttggttt attgaattgg gtatcaacgt gtttcaaaca atgtggtggt tggttggagc 420
aattgttgta tctgca 436

<210> 5058
<211> 219
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-054-Q1-E2-A2
<400> 5058

agtacggta gaatgccggg tcgaccctag cgtccacgca cgcgtccgcc caaacgtccg 60
acaaattccc aaacggagtt gagctcgaag acttgaaacg gtcggtgtcc tgcaggaaac 120
tatccaaaac taaagcaaag ttcttataaa aaaaaaaaaa aaaagaggaa aaaagaaaaa 180
aagaagaaaa aaaaaaaaaa aaaaaaaaaa ggggaaaaa 219

<210> 5059
<211> 366
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-054-Q1-E2-A3
<400> 5059

cgggtcgacc taggcgtccg acggcgtaag acgtgataca gagtaggaag agaagagaag 60
agagctagaa aggaggtaga agaagagtgg aaggactaga agaggtacgg aattcacgac 120
gaaggagcgt gaaggaagga ggaatcccaa gtaatcgagg aagaaaaagc ttcggtgaaa 180
gcgtgaacgg atttgtggta cacactgcc gtcaagtctt ggaagtgtgc tangaataag 240
caggagaagt agaagaggag taggagggcg ggaggggagg tggagacgta agacgtgaaa 300
aaaaagcgta agacgtgaga cagagtagga agaaaagaga acagagctag aaaggaggt 360
aaagaa 366

<210> 5060
 <211> 436
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-A6

<400> 5060

ggtagcgggc tagaattccc gggccgaccc acgcgtcagc ccacgcgtcc gccacgcgt 60
 ccggaaagaa agaaagataa gtgaatatca tatgggtggat gtgagtcctat ggccaatact 120
 gacagtagta gcattgatgg gaatattgat aggaatgata gagggtgatgc attcgatggg 180
 taagaggata ttgataatgg gagtaataag tatgttgatg agtatgtatg gatgggtggag 240
 ggatgtaata agggaggggag tattaggggtg gtcgaggcga gggaagtcag cagtggggaa 300
 aattgggcaa tgtacagggg agtatgaccc agtaatgagg agtggagtaa acagaaaagg 360
 aagtaaaagg agggaatgaa gggaagttat ggcaaaaaca cgtgccagca gcagcggtaa 420
 aacgtgtgta gcaagc 436

<210> 5061
 <211> 412
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-A7

<400> 5061

ggtagcgggc aggaattccc gggccgaccc acgcgtcagc gttgtctcga gacgtaattt 60
 gtcgatggca atgtctacta gcaagccaaa agtacttgcg ttgtatcgac atatgttgag 120
 atgtattaag actttacccc cacaagtaca gccttactac agatactatg tgagacaagt 180
 atgttttttt gtttggtggg caacactcgt tctctcttac ggtacttttag caattcaata 240
 gtcacgcaga cgagatagaa gaagaaagag tgggggaaat cagatccaag tctcgttctt 300
 atattccgta tatattaaac aaggtaagtt tgtgttttat ttgctgtgaa tatttctcaa 360
 aagacttgca cagtacaata ataaaccacc tagctaagac tttcgtggac gt 412

<210> 5062
 <211> 420

<212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-054-Q1-E2-B1

 <400> 5062

 aggtagagcg ttaagaaggc acgggtcgac ctacgcgtcc gtgctttttg tacggttaac 60
 aattgtcgtc aatcaccttc gggatatgat caacgagtgg gagtttttgg ttccaaaggc 120
 ctcgttcgtt ttgggaagaa ctttccgaat aatgtcttta ttgaagatgc gcagtcggtt 180
 cgaagaagtg atcttccctt taacttcttt atgggtcgtt ataccgaagc ttatcgtaat 240
 gaaaccaaac agtttgttca atgtgtcgtg gaaaacagag gagcgcgagg gagtggtgga 300
 gatggaactg ctgcaatggc aatggcaatt gctgccaaaa agagtttgtt ggagaaaaga 360
 gccgtaaaac ttagcgaaat tactccttaa gaataataaa atgttggttt aatctagtcg 420

<210> 5063
 <211> 411
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-054-Q1-E2-B10

 <400> 5063

 tcaggaattt acgggtcgac gcacgcgtca ggtgggaaac atgtcgaaga agccttctgg 60
 aagactttat tgtaaagggg tagtggttggg ttataaaagg tcacaacgga atcaatatcc 120
 tagtcaaacc agaatcaaga tacagggagt tgaagatcga gcttcgacag cgttttattt 180
 aggaaagcgt gtggcatatg tttaccgtgc aaagagacca agaaagagtg ttggaggaaa 240
 gaaaacaaag attcgagtga tttggggaag aattattgca ccacatggta atagaggagt 300
 agtacgtgcc aagtttcgaa acaacttgcc accttctagt tttggcaaac gagtaagagt 360
 tatgttgtat ccaagcaacg tataaacaag tgctttaaaa ttttattctt t 411

<210> 5064
 <211> 436
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-054-Q1-E2-B12

 <400> 5064

aattaacggg ctcgacgcac gcgtcagaga cgaaaagcaa attcccgcgc ctattcgttc 60
 agaaacaact ttagaagatg aacttgcttt agatgcacca gcacaaaaga cattaaactt 120
 atataaagta gataattata cttttggcac gaagcagtca tcccaaaaac aacacgaaag 180
 aaatccacag cgttttaaagg aaaaatatca agaaaggggt ttgaggcact ctgttgagg 240
 agtacttctt gtacatcacc atcgacatcc gcacgttctt gtattacaac aaaccaagga 300
 ctctggaagt ttttggcttc ctggtggccg tttgcgtcca ggtgaagggtg acttggaagg 360
 tttatcgagg aaactagata atcgcttaag gagtccctca caagagaagg gcagctggga 420
 aataggagac tttttg 436

<210> 5065
 <211> 431
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E2-B3
 <400> 5065

aggtagcggg tcagaagtcc cgggtcgacc caggcgtccg cccacgcgtc cggataaata 60
 tggaatcctg gaaggtttga tgacgaccgt tcatgcaact actgccaccc aaaagacagt 120
 agatggacct tctcacaagg attggggagg aggaagagga attttgaata acattattcc 180
 atcttctact ggagcagcca aggctgttgg taaagttatt cctgaactga atggcaagtt 240
 gacgggtatg gctttccgtg ttccttgtcc ggatgtttct gtcgtcgatg tcacgtgtcg 300
 tttaaagaca ccaaccactt atgacgattt caaggcaacg atgaaagctg cgtcagaaag 360
 caaagcttta aagggaatat tggcatatac cgaagatatg gtagtttcta ctgactttgt 420
 tcacaatagt c 431

<210> 5066
 <211> 393
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-054-Q1-E2-B9
 <400> 5066

gcgtcagtga tgagctgttc caacggcaaa agagaaacga gctctagtgc aacactgaat 60
gacctttaag gcttgatttt tccgattatc atactaaacg ctgattttac acacaactca 120
cgagaaattg atattagagt cgacgagaaa gaaacatatt gagaactgat gttaatctgt 180
ctagctgttg gcaataagac aagctacggc gtctttccaa gtttctttca actcttataa 240
acaaaacaag taaaacgcct attcactact ggtaaagtct tttctttcga taaaaaaaaa 300
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaagga agaagggcgg naggtctaaa 360
ggatacatgc ttacgtatgc gtgcatgcaa cgt 393

<210> 5067
<211> 443
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-054-Q1-E2-C1
<400> 5067

tagcgggttaa gaaggcccg gtcgaccag gcgtccgtgg aagaagagtc ttatatcgat 60
cccgatttat ccaaagttgc gaaagaagaa ggaaataatt tgtataaaca aggccaattt 120
ccagaagccc tgcagaaata tacggaagca atcaaagca atccaaagga tccagttcct 180
tagagtaata gagcagctac tttgaccaa cgtaggacaa ttcccttctg ctttagcaga 240
ttgtgaaaaa tgtttgagc tagatcctca agttgtaaga gcgtatgcca gaaaagggtgc 300
tattcatttc tatatgaaag aatatcataa gagtttggat gcctatcaac aaggacttca 360
agtggatcct aataatgcag aattgaagga aggattgcag aaaactttga gtgctattgc 420
agaacaacaa cgctccgaga aac 443

<210> 5068
<211> 323
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-054-Q1-E2-C10
<400> 5068

aattctcggc gtggagccca aataaaagca tacaagcacc tctttattgg atatcatttc 60
tatggacaag gtagaagaac taaagtcact ggtcaattcc gtggaagaag actgcaataa 120

attttttgag aacggaaaca agtcagctgg agttagagca agaaagaact tgcaagaaat 180
 caaaaaactt gctcaagaac tacgcataga gatacaagcg acgaaacaaa ctgaaaagtg 240
 atactttcaa ctgtgcagaa tcaaccatgg cttgtgaaac tattccagtt tttcaaataa 300
 ataccttttt tcgtttgtaa aaa 323

<210> 5069
 <211> 185
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E2-C11
 <400> 5069

attcacggct cgacgcacgc gtcagcccac acgtccgatt ctgagtaaaa aagagccggg 60
 ttacttcact aaagaacatc ggaaatgccg ctcgacggaa atataatttt cattgtttggg 120
 aatcgatttt gcgcaacctt tgcattcccct aatggttggg aaagacggcg gaaaagcaaa 180
 ccctt 185

<210> 5070
 <211> 353
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E2-C3
 <400> 5070

cgggtcgacc tacgcgtcga gacaatatc acaacgcact ccaccaaca agactgttca 60
 cttcagggga gctttgtgag tggttcggga gagtattcac tggtttcttc atagcgggtgc 120
 agtttttggc ctctttgtgt gtagtctctg aggaatgggg cttcctcgtc ggcgtaagggt 180
 ttcgtcaaca ttgagggatt gtccgaatat tttgttgctt gtcgtgccg ttggaactgg 240
 aatagttcgt gctgggtggag cgggggtgggc gggtcggggg tgcttatgaa cacagctgcc 300
 tatgttggtt tgaaagggtt gacttttggt gtgtcggctt ggccgcctta tgt 353

<210> 5071
 <211> 224
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-C5

<400> 5071

ggtaccggtc acgaattcgc gggccgacgc aggcgtgagg cttgagcggc agagcaatgg 60
tttctgggca gccttggaac gaggggacgt gtgacttggg tcaaaatatg tttcgggaaa 120
cgaccacgga gaatgtttct agttatcgcg agggatgttg agggctacag aatgagcaaa 180
gtgtctgctc aagtcgtctg ggtaaaaccc catagatttt ccaa 224

<210> 5072

<211> 439

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-C7

<400> 5072

gtaccggtca ggaattcccg ggccgaccca cgcgtcagcc caccggtccg caagaacagt 60
gggtgctttg taccatgtcg ttctgtcctt acaagtgaat acgttcctat gggttatctgg 120
actcattctg gcagttgtaa ctattcttca ggcctagtt atgtatagaa gctcaactat 180
agaacagaag gtgtccgcta aacaaaagtc ttcaaagaaa gaccccagaa aagaacaagg 240
agtttcaggt tgtcctttga cgtgggggtcc aagggaagca ggcattcaac tacgccattc 300
ggttcacagc tatggtttcc ttcttcatct ttgaactgat cacatacaac cggtagaagc 360
gatgggagtc gagacaagct agaaaaagga actcgcaaca agtcaaaggc cacaataaag 420
ttgttatctg ataaactgt 439

<210> 5073

<211> 435

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-C8

<400> 5073

ggtaccggtc aggaattccc gggccgaccc acgcgtcagc gccctccata tttcacttta 60
cagacccaaa ggagacctgc tatggcctca tcgtgccact tcccaaaagg cgttttccag 120
agtctgccag gtaagtttca agtgcgttat ggggtgcgagc gttcatcctc caaagtctct 180

ttatataata cttattgggg tttgaaaata aactactctc gagtggcagt aacttggata 240
 cttgctgcaa ccatgtgttc gacgcgagct cggggtcgcg ggttttgata atactgcgtg 300
 gttttgcgaa gctgaaggga tagaacgtga tttaggcaaa gttggcggtg gtgcagcaag 360
 ctcggggaaa acctctactg gtgtatctcg gactgtaact agaggagtga acctaagtgg 420
 agcagatttt tcggg 435

<210> 5074
 <211> 411
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E2-D1
 <400> 5074

agtacgggta gaatgtccgg gtcgacccat gcgtccgtgc acacgttggga tgaacctcac 60
 aagggttgga gtagaggagc gtttcgaaag gttacaagtc tgggtgtgac tatcgacact 120
 tgatagggaa tacatggtgg tggcatagga taagtttaca aaagacgcaa gtcaatcgaa 180
 tagaagctta gtggcatcaa cattgtcatc gggttggatt ctaataccat atatgagatc 240
 aatgtctttg gaaaacagcc attattaaga gcgatacggg gacgtccacg tgacgggaga 300
 cccactttta agtgtgatat tgggtcaagat ggaactaagc aagaagatat tgcaactacc 360
 ggattacata tggaataagc agcaactact gttttccaaa caactaccac t 411

<210> 5075
 <211> 438
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E2-D10
 <400> 5075

aattaacggg cgcacgcacg cgtcagatca aatgtgtgtt acctcgagaa acgtatatcc 60
 acaattcctt ttctactctc caaggagtgt accaagaaaa accgtaaaca agacaactca 120
 actcaattct gccaaacgaa cgagtccttt ctgcagtaac tttgaagaat ctgaagctct 180
 gtgactgcgc acggtcacga gacttgtatg aaaagtacta gctcaagggt actactggaa 240
 caaaacaata ctgcaattca cttgttcgat ccattgcttg caagcaactt acgagtcaaa 300

cagcgactcg aagaggcacc aacgttacta ttcttgcaag aatagatata gcctagtgc 360
acaacataag tatatatattgg tatatttgca attttatttc gtcaaaagat gctatatatta 420
cttacaagga caaagtca 438

<210> 5076
<211> 433
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-D3

<400> 5076

gtagcggttt agaatgtccg ggtcgacca ggcgtccgct tttatctctt gtagcacaaa 60
caciaaattaa agaacaatgc gtgagggttag ttctcgacat attggtcaag cagggtgttca 120
agtagcaaac tcttgctggg aactttattg tttagagcat ggtgtcaacg ctgatggaac 180
cattgataaa aagggaaaca cagcaaacga ggaagctttt ggtaccttct ttaccagac 240
aagctcggga cgatatgttc ctggttggt agttgtcgag gtgggggctt cgggcgtaga 300
tgaagtcgt acaggtgcct accgccatct ctatcatcca gaacaactta tttccggcaa 360
agaagatgct gcaaacaatt atgcaagagg aactatact attggaaagg aaatagtcga 420
cettactttg gag 433

<210> 5077
<211> 308
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-E11

<400> 5077

aattcacggc tcgacgcacg cgtcagatac aattgacgga aacatttact accaaaaata 60
ttctttctgc agccattagt attcctcctt gtgacaagga atgtaataat aatgacgaga 120
ataacaatta gaggttatcc caagtttccg ttctcttttc ttctcttttc attgttcct 180
tgattctttc cacaattaga ttggaagggg ctaagaaata gaaaatagtt tctattccat 240
tcttcagtcg agaattggga atatgtggtt ctataccgat ataaagatga ccaagaatgg 300
ataagaac 308

<210> 5078
 <211> 423
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-054-Q1-E2-E12

 <400> 5078

 gacgcacgcg tcaggctcta ggtccaactc cttgggtggt tgcttcagaa atttatccaa 60
 cctatttacg tagtcacgga atgttgctat ctgatgttac aaactttaca ggcaacttta 120
 ttactacata cgcattcaaa catatgacca atgcaatgac gaatacaggt acctttgttg 180
 gtttctatgg aggtcttact attctcgggt ggatgtatct catgttcttt atgccagaga 240
 ccaaagacaa gactctggaa gaattgaatg aagtatttga aaggccgacg atggacattt 300
 ttagagaaaa tgtggtccga gtgaaagaaa cttgcaatga tttgattcac atgcgttgga 360
 gaaatatttg ggtcttatcc aaatagacgt gtttttcccg tttgttttga ataaagttgc 420
 gta 423

<210> 5079
 <211> 443
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-054-Q1-E2-E7

 <400> 5079

 ggtaccggtc aggaattccc gggccgaccc acgcgtcagc ccacgcgtcc gagtttgggt 60
 gttttcttgg gagcagttgt acattcaaca tcatcaaatg ccaaaggag gaaagaaaga 120
 ttcttcaaag aaagaagcca caagtaaacc tgcagcagca gatgctacaa agacgacaga 180
 aaagtctggt ccggaagcca agttgaaggg aactggtgca aagaaacaat aaaaagttga 240
 ctatgcatgt gcagtctgt tatgttttgt gagttctgtt tgatagtttc cagctattct 300
 tttggtagtg aataaagaga aaatttttta taaaaaaaaa aaaaaaaaaa aaaaaaaga 360
 aaaaaaaaaa gagagaagga gaaaaaagaa aaaaagagaa gaaagaacaa gggagcaggg 420
 ggaaggcaaa aaaaaagggg ggg 443

<210> 5080

<211> 428
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E2-E9
 <400> 5080

aatttgcggg tcgacgcccg cgtcagtttg gaatgtttgg cataagaaag ctcccatgca 60
 gaattatctc ttacacaaca caaaattctg ttccgagttt ggaatgcaat cgctttgttc 120
 ggtagagaca tgctgtttat tcgcaccgga atcagaaatg aatatgttta attccatatt 180
 tgaaagtcac caaaagaaca gagcaggcaa cgaaatcatg ttgcattata tttttcagtt 240
 gttccaattt cctcgctcat acaaaagttt atcctatctt tcacagctga atcaagctct 300
 atgtatgaaa tgtggcgctg aacactttcg tagacaaatg ccgttttgca tgggctctct 360
 ttactggcag ctgaatgatt gttggccagt gactagttag agtagcatag aattcagttg 420
 tcgctgga 428

<210> 5081
 <211> 429
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E2-F1
 <400> 5081

aggtagcggt taggaatgcc cgggtcgacc catgcgtccg agactattcc ggtggaatga 60
 ggaggcggtt aagcgttgcc gtttcgctta ttggattgcc ttcggttggt ttattggacg 120
 agccttccac aggactagat ccagactcca aacacaagct gtggcaatgt atccaacaga 180
 gaaaagaggg caaaactatt gttttaacga cacactccat ggaagaagcc gaaagactgt 240
 gtgatcgtag cggtattatg gccagtgcaa ctttggaagg tgtgggtccg ccagaggaac 300
 tgaagattcg tcttggaata ggcttccgtc tgaatatttc ttgtccaaga agacgcgtta 360
 aacaagttct ttcgtttata gaacaacagt atgcagatgc atttttggac cattccttag 420
 cgggtaatg 429

<210> 5082
 <211> 434
 <212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-054-Q1-E2-F10

<400> 5082

aattcacggc tcgacgcacg cgtcagcgtt ccgattgcaa ttgcacttga agagatttgt 60
gtggttccta gttgttagtg tttgtgtgga tgttttatgg ggaacaaaaa ctcctctgga 120
gtattttcac cggaatgtc ttatcgtata ggaggtacta gaagtgggtc cgaaactttt 180
cgtaaccaca gtgatgcttc tttctccaac aaccaaccct ttgtagacaa tgtatatgtt 240
tttgaaactc ctcaaggagt ggcagcaaca aacaatatac cttttcactc ttcagaaaga 300
acatatcggg gacagaggtc cgtttctang gccaatcttg tcttggaagg tcagcctcca 360
agtaaccaac agctgccttc tcaacaacag gttagttgat gtatgccttg ctccttcga 420
tagtttctga tata 434

<210> 5083

<211> 434

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-054-Q1-E2-F11

<400> 5083

aattcacggg tcgacgcacg cgtcagccca cgcgtccgcc cacgcgtccg cccacgcgtc 60
cgcccacgcg tccgccacg cgtccggcca tttttcttgt ggaaagcgtt cgatagaaaa 120
atgccaaagag ttgttttggc gccttgtaa tactcgttgg tacatatata aattatgaat 180
aaagaaaatc tccaaatagc gcaatttgag agactcacia cagagcaa at gcttaatctg 240
gtgaaagaac cttctagggg tttgtactac acagtcgaac acttgaggaa acganggata 300
cctcgtctgg ttcgcgaaca agagaaactc gacacagtta ttagtaagga ggacgacctc 360
aagatagact gtcagtttgt acaggagacg atggaaatgt ttctgcagc tgcagaaagg 420
tttgactcga ttat 434

<210> 5084

<211> 426

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-F3

<400> 5084

aggtagcggc ctagaatgtc cgggtcgacc caggcgccg gttcgttcag atctccgcag 60
cttaacgatt agtgtggatt tttgttgcaa ggtctcttta gaagaaagga ctaggattag 120
tttatacaaaa cgacagcaaaa ctttgtatct ttttgttctt gggtaaattt tttatcgctt 180
agtgggttgt tagctaggaa aagggttggg ttagagctgt gttacctga gaaggtacca 240
aatatccact cctcgtaacta gtctgtttgt gagggttacg gcgagagagg tgggggaact 300
tttcacttgt atgttgtgct tggtcgcctc acagtcgaat aggtcttgaa cctggtgaag 360
ctattttgag tagagagacc gatagtaaaa gagacagtcc cgcacctca tggagaaatg 420
cttcaa 426

<210> 5085

<211> 219

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-F8

<400> 5085

aggtagcggc caggaattcc cgggccgacg cagcgctcag attcaacgaa cgaggaagtt 60
ccagtgcgtg aggctgtgat tggggcgctt atgcgtaagt tctgctctgg ctgccgaatt 120
ggcagctgga ggtgcggaaa aactggtgga gacaggatgt gacgaactct gcggggccca 180
atattgttat tgggaagggg gacgtatcac atccacacc 219

<210> 5086

<211> 429

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-054-Q1-E2-G12

<400> 5086

aattatcggc tcgacgcacg cgtcagattt taggtctcct acatcgaaca ttctctcaag 60
tgcaacatat tgcaggaatg tgaaaaattg actgtcccag agttgataat atcaacgtat 120

caaccatctg tcgaacttgt gatgggtcatg gcacttatct atagagtctc gataactaac 180
 ttcgttcaat agatatcgca gattctaaat ggtattatgc aagtgcagat gaagatacct 240
 ccatgtcaat ctgtacagaa aatcgccaag cagatagtta actagcttcg aaacttgact 300
 tcaacatacg ttgttgagtt acgttactct cctcgatttt ccgagattcc ataatggatg 360
 atcgagcgat tggatgtgca tagagacgct gtactccaga ctcatagact cgtaccacta 420
 cgtattcac 429

<210> 5087
 <211> 448
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E2-H6
 <400> 5087

aggtaccggt cagggattcc cgggccgacc cacgcgtcaa gcttcgggct ataaacttaa 60
 gatgttggtg attatctttg aaatgggtgt agctttccac tccgtaatta ttggtctgaa 120
 tcttggaata ggcacaggat cgacattccg tacgttgttt gctgctctcg tatttcatca 180
 attctttgaa ggatttgctg gcggtactac tgtttctgaa gccagtttg gcacttggat 240
 cactatagta atggtacgtt gctagtcgtt ggagggtcga atcggtatat ctattggtat 300
 tggatttgca cacacttatt aggaaaactc ctcggcatct ttgttaacga gaggcatttt 360
 ggatgccatc tccggtggaa ttttaataa cacaggattg gtggagttgt tgacttattg 420
 gtttacgcgc aactcgaact ttttaaga 448

<210> 5088
 <211> 437
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E2-H7
 <400> 5088

aggtaccggt caggaattcc cgggccgacc cacgcgtcag cccacgcgtc cgcccacgcg 60
 tccgcccacg cgtccggaca aagcctaatt cgaacaagg catttctcag atgaagtgga 120
 gttttgatgg aaagtatttg gcttcttgta atgaaaacac tccgcatgtc ctctggattt 180

ggaatgttct tgaaatggag gttgaagcag ttttgatatg tcagacaact attaagacaa 240
 tacagtggaa tccatattgc ttacaacgtg cgtgtgtgac aggttccgaa tatctatattt 300
 tatggaattc tcaaggtgct gtcagtgttc cattaccctt tcctgagttt tatccgcagt 360
 attgtacttg gcctttgcaa gagaaaggac cacttttgct tgctgacaag agccaattct 420
 gcctcgccat ggaagaa 437

<210> 5089
 <211> 440
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-054-Q1-E2-H9
 <400> 5089

aattctcggg tcgacgcacg cgtcagccca cacgtccgcc cacgcgtccg cccacgcgctc 60
 cgatgcagcc catgtacagt agcagagaaa ggtatccata ttatgacggt gaagtatatg 120
 atgacacggg tgttgttccc ccggaaacga ggcccaaagg aagacgtgtc atagtagaag 180
 agccagaaga gtacggaatg ccgccagggg acagagatga tagcgaagat gacgagcaca 240
 ttggtgggtg gagaagaaga gagcagcaca gcatgcagcc ttggaaccag tcaccttttg 300
 aacattttga cagacttttc gaaaatccct tttctgcaat ggagagagga ggattcgggtg 360
 gattatttgg taacttggaa cagtccttaa gaagactgga ggaagacttt gccaaagggtg 420
 ggggaaatgg aagtgctcat 440

<210> 5090
 <211> 361
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-055-Q1-E1-A1
 <400> 5090

gtgaccgggtc aagaattacc gggtcgagcc acgcgtccgg tataattgtc tttttccgtc 60
 cgcgtaaca acaacaggaa attcattgat ggacaaacct caagtggatc atcccacgtt 120
 ggtaaagata gacttgtctc aaggagcctt taaagtactc caagactgtg acagagattt 180
 agaatgtgat cataatacca agtttcagtt ggaacgtaat cagtatggtc ctttttcacc 240

tgggttttgg accaaagaaa atgttctgct cctccaattg gagctcgtgt caggtgtatt 300
cataagggac aatctctaac ttttctacaa caaacgtgaa gaacatttgt ttgcgaattt 360
a 361

<210> 5091
<211> 237
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-A5

<400> 5091

attccggggc gacccacgcg tcagcccacg cgtccgccac aagaagaaca agaagaagaa 60
gagagcaatt gcagcaacag cgcttcttga agaattttct tggcggttg gacgtttgtc 120
caaatggcct ttttgagtga agttttgtta cgaacaagaa tagcaccgag ttggcagaga 180
aaaagacatt gtttctcctg tcgttcacat cataaagcca aatgggtatac gtttcat 237

<210> 5092
<211> 321
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-A6

<400> 5092

attcccgggc cgacccacgc gtcagctggc cttgcaactg ggagtttacg ggtctgccta 60
ttactgcaga taactggatt cccaaggata aggatgggaa cataaagttt tccaagggtt 120
cactatagca gacttggcac gctatggaag aagttcagaa aatgggtccc gtaaagtcca 180
atggcggtttc caactaatcc attgtgaata agttggacct tttcaattat tgcaagaatc 240
caacagcagt gaatcaaatt gaaatgcac cgtaatatgc aagaacagat ttgccccaat 300
tttgtagag tcctggaatt c 321

<210> 5093
<211> 440
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-055-Q1-E1-A7

<400> 5093

gacccaagcg tcaagcccac gcngtccgcc caagcgccg cccacgcgtc cgccaaatct 60
tcgacactac gagcaattca gtgagaatgg cgacgagtag tttgttgcca aacaactcca 120
acgcccaccac tacaaagcca gttgttcgtg agtgggcgga cgaagacgac tcgtcaaaca 180
acaacaagtt accacctcgt gaggaatggt acgatgagga aggtttgaag cacgttggtg 240
aataccattt caacgatgac aacaaactgg gaataccaca aaagtatttc gagtaaagaa 300
acagactaga caagtttagca agacggttgc agaaagaagg cactggaaaa agtttggcca 360
acggtaaaaa accacttctt gaaccggaac ccggtgtcac tgcagtgagt cttgacgaca 420
tttccatcga atacaaacat 440

<210> 5094

<211> 308

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-B10

<400> 5094

acgcgtcagc acacgcgtcc gagccacttt tgcaacttga caattttgta gttcgaagat 60
aatggcagtt aggcaatggt tgcttgtttt catatgtctt tcggctctgt taggttcaac 120
tttggtgct tctggtgcaa cgtctattta ctggttgctt cagagtaaaa cagactatac 180
ttttacagtg caaagcatag agctggctaa tctaacagac gtatacaaca gcagtgtatt 240
gggctttacc tttcttgctt ccaatgacac tgcttggaac caatcaagag ccaatgtcac 300
tggtgcac 308

<210> 5095

<211> 435

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-B11

<400> 5095

cccggctgga cccacgcgtc agcacacgcg tccgtgttgt tggtcttttg ctttccttgg 60
aggatgcaag tcaccttgaa cttgtttgta actgggttacc atcctgaagt gggttatatgt 120

agcataaaca atctattcgt agactggaat gatgatgatg atgatgatga catttcacca 180
 agcaccctac caaatagtct ttaccgaaat gaatatttct tacagatttt cttttggcag 240
 accggagaat gttatcaact ttctctatcc aaagtcagct ttgtgtttca aaagttttgg 300
 gtttctgaac caagcattct actccgcata gaaagcccca aaaacgatat aagacaacac 360
 ttgctacgag tgtcttcttc cattagtgaat atggaaacag aatcactcgt atatctccaa 420
 tccattcaag atgag 435

<210> 5096
 <211> 255
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-B2

<400> 5096
 gccacgcgtc agcttaagga agaactacga aagcagctcg caacacatat caaagtcac 60
 gttggtggag tcattccata tacagactat gactttctga gaaatattgg agtcaaagta 120
 atttgtggac ctggaactcg cattccagat gcagctatgc aagtattgaa agccattgaa 180
 gaagaaccaa ccaacggtgc aagtaatggt gtggaacaaa catcgtagta taaattataa 240
 gaaaattatt tcgtt 255

<210> 5097
 <211> 452
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-055-Q1-E1-B4

<400> 5097
 gggccgagcc acgcgtccaa aaggtagcga agtaaataga cgtttgaaag gcgtccagta 60
 tgaaaggaga aacgagtgtg aactgtcca atcctccaac tcaacgaaac aacaataact 120
 gttaaaattc cattaactaa caattaggac ggaagaaccc aataatcctt aacaaaataa 180
 ggttaaggaa ggaaaaaaaa tcataaagta aaggaagtgg ggtaagagaa taaagacact 240
 gcatgangat aaggaatcta actgagtaag gaaaataagc ttaagctagt ttggctgggg 300

aagtaaagcc taagaanaga gtaaattagg caagcanagg catgagagaa gtataatagc 360
agaagcatgc ttgaagaaaa agaaagagat ttccagaaag gaagaaaagt cagctataga 420
gaacaagtga aggagaactc aaaaagagga ga 452

<210> 5098
<211> 440
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-B5

<400> 5098

gacccaagcg tcagcccacg cgtccgcaag tattcatgga cactgtgga aacctactcc 60
tcaagacaat agcaatacta gtcttggttg tgggtgtggag acaaagaaat cgaagaagaa 120
taagaaacaa caacattcta gtagcaattg caacaatact gctagtcatc cacaacaact 180
ttcaacgcat cttacaacta gtaatcatga tttggagtcg aatcggtttt cgggtggaaag 240
agaattgccg tcattctctg gtcagccaac ttgtactact ccaatgtata tgacacagga 300
aaccaacaga acaagaaagg aaccagaaaa tgtacaaaac tttgttcatt ggacaaaaga 360
aataactcct aacaattgtt cctcctccca atttacaatt tccaacatta caaccacaag 420
aagaagaaga agaatggaga 440

<210> 5099
<211> 240
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-B6

<400> 5099

aggggaagagc aggatataag gaagttggga ggaggtagga tgaatgtgag taagatggga 60
gtaataatag ggagtatggg aataatggga atagaataca gtagcgtata tgaatcgaag 120
gaggagataa taaggagag tagtatgagt agatatggag aaataagtag tgtaatggga 180
gtgggaataa caagttatta cagtataagg atgataaaga gggtaatagt aagtgaagga 240

<210> 5100
<211> 298
<212> DNA

<213> Cyanidium caldarium
 <223> Clone ID: LIB190-055-Q1-E1-B8
 <400> 5100
 aattcccggg ccgaccacg cgtcagccca cgcgtccggt tactgctcac agcgactctt 60
 tctccgcacc aggttctgga actgttacta tatctggctt tgggtggatcc ggtccatttg 120
 gtttggcaat gtatggcaat tatccttctt caggagcatc acaacgattt cttttgcatc 180
 aagcaagaaa gacagccgca aatattttct aatacaaagg atgacagtgt ccataacctc 240
 aaaaaataaa tgagtacatg acagcgacaa agaacgctgt atgcaggcga tagataaa 298

<210> 5101
 <211> 414
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-055-Q1-E1-B9
 <400> 5101
 ccgggtcgac ccacacgtca gaaagaagga aaaggagaag aagagagggt aggcttagaa 60
 gcagcaaacc agagaggaaa gcgttaaagc atgaaagaaa agaaatccga aaaagaagag 120
 aaaaaggtaa gaaagaggac cgaatcaagg taagaggtag aggagcaaga agagaagaga 180
 gaatgctggg tggagtagcg aaacaagaga agggaaagtaa aaggtaagaa agaggaaagg 240
 ttacgagag aaggaagtag aaagaagaga gtgtaaggcg gcgtcataat agaaatccga 300
 aaggagtaga agaaaagaga gagaagaaag aaaagaagag aaaagccgta ctgaangacg 360
 acacaggtac tcgaggagaa aggagacca aattaagggtg agagaatgga cgat 414

<210> 5102
 <211> 375
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-055-Q1-E1-C1
 <400> 5102
 ttgcacatca aagtttttga acccatactt attcttggtc aagacaagtt tgcggacttg 60
 gatattcggg taaagggtcaa aggtgggtgga cacaccaacc aaatctatgc catccgcca 120

gctattgcaa aaggactagt atcgtattat cagaaatacg tcgatgaagc gttgaaaagg 180
gaactcaaag atacgttgat ttcttacgat agaacccttg tggtagcaga tcccagaaga 240
tgtgaaccta aaaagtttgg aggaagagga gccagagcac gctttcaaaa gtcctatcgt 300
taagtttgtg attgggtaca cccaggaaca atgggaggag tccttttata aagaaaattc 360
ggtgccaatc taaaa 375

<210> 5103
<211> 372
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-055-Q1-E1-C12
<400> 5103

cccggtgga cccacgcgtc agcacgggaa ttttttggct tttgtgaatt ggcaaaactc 60
acaatattgt caatggcaga ccttgagaat acaggaaaaa ctaaggctac tatcgcaaaa 120
agtctcattg agaaatacta caagtctttt tgtaatgatt tggtcgagag aaacaagaga 180
aagaacgaga ttgaaagcaa gctagcagca atgaagttga gtgaggggtga aaggaagaaa 240
tacagacagg agttgttgaa tagagaattg cggtttctga gagaaacgca caagagaatg 300
actgaagacc aatttgaaac cgttgacctc aatggaaagg gtgcctttgg tgaaattcct 360
ccgggtctaa aa 372

<210> 5104
<211> 298
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-055-Q1-E1-C6
<400> 5104

gtaaggtcag gaattcccg gccgaccac gcgtcagaag aactggaaca cagaagaaac 60
gtcaccaaag cgacaataga aagtctcaag aagactccta ccgaaaagtc aaggcttaca 120
ttttctggac aacttgaaga agtttatcga aggaatttaa agatattcaa cgagccgggt 180
gacagtgttg gggcacttca gtttatgaaa aattaatatc aaaacagtaa tagtgtgatt 240
gtgtgggagc tttattgtct gcttgtgtgc taacctaaat agttgttgtt gttgtttt 298

<210> 5105
 <211> 239
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-055-Q1-E1-D12

 <400> 5105

 accggtcagg tattcccggc tggccccacg cgtcaggatt gccactccaa gtatttgcca 60
 tagaagaaga gaagaccaag ggctgggtgt ttttatctag tgctatttgg atacaaaccc 120
 tggaagaat tggaatatgg agatattgtg ggaactggta tagctagagt attgttgtga 180
 tagcgtgttg tatcccgact cgaacaactt tacatggcaa taaaagcagt tgttcaagg 239

<210> 5106
 <211> 256
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-055-Q1-E1-D2

 <400> 5106

 gggccgagcc acgcgtcaga aacatatcag ttcgagccat tggcgaaagt tagtgaagtg 60
 cgacatgata tgaagccagc taggaaagaa actgaaaaat atttaaaagg taaaagtttg 120
 gataaacctt tgaatttcac caggaactcg tcgataaact tccaatgctt cttcttctgt 180
 tgagcagttc tttgcaagaa gaggaggatc ttcaaagcct atcgaataat aaaagaaaag 240
 taataaaatt gtagcc 256

<210> 5107
 <211> 438
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-055-Q1-E1-D3

 <400> 5107

 acgcgtcagg tctatgtcgc ctgcatttga ttcaagaaag tgttcctgaa gactatgccc 60
 aacaaacaga acaaggctgg aggcagcata tcttcatgcc catcaaagtt gtttttggct 120

atgctccgga aattcctttt tgaagacttt ttggctcatt caatttcgga taatacattt 180
 tgataagcga ccagttgggt ggaaggtga gatggttggt tccatgttaa ataaagcgca 240
 acaacaaggt tgagaaaaca aatggctgca attcctagga tgtctactgt aaacgaacca 300
 gtttttgtct tacatattcc gcccatcacg gaaaccaagg ccgaaccgac attntgcaaa 360
 gccgattaag aatttttgag aaaaccctaa cagttccggt ccaatgcaga aatgaacaag 420
 tgcatacaag ttattcca 438

<210> 5108
 <211> 439
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-055-Q1-E1-D4
 <400> 5108

acgcgtcagc ccaagcgtcc gcggacgcgt ggggccatgt ttctgaccag aagcgaatat 60
 gatagaggag taaatacttt ctgccagaa ggaagactat ttcaagttga atatgcaatg 120
 gaagcgatca agcttggttc aacagcggta ggtatacaaa cagctgaagg tgtagtactc 180
 gcggtgga aaacgtctttc ttctacgctg ttggagccta atagtgtgga aaaacttgtt 240
 gaaatcgatg aacacgtggg ttgcgcaatg agtggcctaa ttgccgatgc tagaactatg 300
 atagaacatg cacgagtaga agctcaaaat catcgattta cttttgacga gccaatgcc 360
 gtagaaagct tgacgcaagc aacttgtgac ttggcacttc gtttcgggga aggtgtggaa 420
 gacgatgacg aaagggaag 439

<210> 5109
 <211> 444
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-055-Q1-E1-D5
 <400> 5109

attccccggc cgaccacgc gtcaagtcaa cttgtagttt gctctgttga taacctgaaa 60
 gacttcttgg gtcagcaagt ttatgaacaa ctccagaaag tatactcgga taatgaaagc 120
 gttttgatga agttggatcc tctcggaag ttgttgggaa gaaatcttga acgattatgg 180

aggagcgatg ttcctgtggt gcccgaaact tcccagatgg atattgtttc caccagaact 240
gatacagacg agatgcaagt aacagagcgt aaaggagttg tctcagtgcg acaaggccag 300
tttgattgga tggagttctt gaaaacatat tgtaaattga cagagtctga agcaagagaa 360
tctagttatc gactaagtcc aattggaaga ccaggatttg gaaggattan actcgtactt 420
attagaagta ctcggaatca aaga 444

<210> 5110
<211> 377
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-055-Q1-E1-D7
<400> 5110

gaattccggg ccgacccacg cgtcagattc tctctcttca cttgagggaa attgttttgt 60
at ttggcaat gtttcgacgg ttactgaagt acttgactgc aaatattctc gcaagacatt 120
gttcaaagag tgcggaagtg acgttaaaag ttgaaaggcc tcagtttaac ttttctttga 180
gcatcaatgg gagaaataac ttgtatgctg actctgtttg tgtgggaact tggcaaatga 240
atacttcgct gctgcagaaa acaagaacaa aaatttggtt tgaattgtac agtatgccgt 300
caaagaacgt tcgtaacaac ttgcgtcatt tctcggagca agttggttca gggatgccgt 360
caagatttgc cactgga 377

<210> 5111
<211> 346
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-055-Q1-E1-D9
<400> 5111

cccacgcgtc agccgcagta gaaaatacat gggaatatcc aaaggcatcc aaggtaacca 60
aggaacttcc tggaaaaaac ttggtttttc cccggtcaag gggaaaatta cgtttgccca 120
acggaccaa gaccctccag aacgggtgga tgcacccctt ggcaaagcag aataccatca 180
acctccaact aatgaacaag ccgatgcctg aatgaaactt tttgaatttt ggtaattaaa 240
atttggttgt ttgctttgaa tgtgccaaga attgtcccggt ttcctgggtg aattcaactc 300

gtacacacac acatacatat atatatgaat gaaaaatgct gcaagg

346

<210> 5112
<211> 421
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-E10

<400> 5112

cccggctgga cccacgcgtc agcagacgcg tgggcggacg cttgggaaga ggaggaggag 60
gattggtgga gatctgagga gacaagagat ggattttacg actgctcgag tcagtgttgg 120
ttttgtatct ctttcttttag agcctacgac atggacaagt ggatcatcca agctatttcg 180
taaaaatgct agtcgttcac agttttattcc ccaaagaacg ttgtgtcctt gttcgcactc 240
tcgtcactct agatatagta aacacttcaa gactgttttg gaagccaaac ttcgtgtagc 300
tgtagttgga ggtggtcctg gtggttcttc tgctgccgag aactggcaa aggctggaat 360
agaaacgtac atttttgaaa ggaagtggga caatgcaaag ctttgtggag gtgccattcc 420
t 421

<210> 5113
<211> 438
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-055-Q1-E1-E12

<400> 5113

accggtcagg aattcccggc tggccccacg cgtcagcatg aagttttgga aagatttttg 60
ggctggtggc tttcctggag gagaagctta tttgaaggag gtgatagaga gtaactttca 120
aaagccagtt ccaggactcg atactagtgg agtaacggga caaggggaag aaaagaaagc 180
agttggcaac cgaacacagc agcctgccaa agcttcttcg ggaaaagact ccaaccctcc 240
ttcttccaat aatggcactg gcaacttggc aaggtgtggg caaggtcctc caataacaaa 300
accggtcaaa aggagaagtc gtttgggaagt cgtaccagag gaatagacaa taacttactt 360
agttggtatt gtgtacctgt tggcttctcc tcgtattggt ttgggaattc caatanaaca 420

ccaacatttt ttctttcc

438

<210> 5114
<211> 436
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-055-Q1-E1-E2

<400> 5114

acgcgtcagc ccaagcgtcc gcaacgactt tgtgaaaaga ttggattttc tgttgctggt 60
cattatTTTT cgcacgtctg caagtctgag gcaaagttgt acactcttat ggaacaacgt 120
tctttgccct tgaagttggg tttcctaagt ggaagtgtta tggcagaagc catcattccg 180
ggtattatag aaaagaaact ggtggatcct tcttctgtta ctgtctatga cgtagttgag 240
tctcgtctgg atcnttttca gaaaatggga gtanggacct gtaaaaacag ttttgagata 300
ttgcatgctg acgtcatcgt tttagcagta aagcctgatg tagtctctga agctctcaag 360
tcccataaag acggatggan nacagaaaaa caccttctag tttccatttg cgcaggagtg 420
tcgattggga caatag 436

<210> 5115
<211> 443
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-055-Q1-E1-E3

<400> 5115

cacgcgtcag cggaagcgtg ggaaagtgt gaaagagtct gtaaagaggc ttttttttcg 60
tggttcgatg ggtggattgt acaatatTTT ttgacaatga aaaaaaatat tgtacatcta 120
ctgaaatgca agaacatgag gaagaaagag gcaaatacgg gaaagcagta aaagaagaaa 180
gagaaaggaa aaaactgagt atcaggaaga aaagagggag tagatgagga aagaaagata 240
aggaagtaag agtaagagaa ggagtaatgt gaatgaaagc acgaaagtat ttgaagaaga 300
gagtgtaaag cgcgtacctt ttgcataatg tcncagcgag tgaaagaggg aagcaaaaag 360
aaggaaaagg aagtaccag gtaagacccg aagctagttg atcttatgct gtccaagcga 420

agtaaggctg aaccagtatc tgt

443

<210> 5116

<211> 436

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-E4

<400> 5116

cacgcgtcag gaagattgat agatatcttc attcattaca gacgggacga gttgctgccc 60

acaaagcttt agaacaatat gtggaacgtc gttgtagctt atccaaacta gtaagctcgt 120

tggaatgttg ctttctggag cgaagtcac aagaagggtc caaatgggc accatcttct 180

cccaagtagc acaatccttt gcaaaggata tgttctatcc caaagatact acttaggtcg 240

caaggtgaag aatggctaga tgctgtgttg caagattatt cattccttgc tcgtgacgcc 300

cgacgggttt taggtgaacg tgtacaagca tacgaatctt atgaaaaggg cctatcagaa 360

cacaatgaaa ggatgccaac aacgggagaa tggatcatagt tccacctcca cgtcctcgca 420

tcagactgaa aacccc 436

<210> 5117

<211> 437

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-E5

<400> 5117

gacccacgcg tcagcccacg cgtccgtccc tttcaccaa tctcgtgag cattgttttg 60

tgctcggtcg ttttcaatgg cttttgtat tttgtttta caaagctcaa aacttggtgc 120

gtcgagagct caaaccagtg ttcgaacata tcagttatct agtaagaaca cagttcgggt 180

gtttaccggg aaggtacttg tggggaggac ttgtcgaagg ctttcaaat ggttgtagc 240

cagtgtgac agtgaaagca ctgtaaacca atgcgtttct gaagaagaaa aaatagtga 300

agaagtgact gaagtaatct ctggagtga tatcaacgtt agattgactt cgctaggcgg 360

tcgaagacgc agaatctcgg gtgggtctga tatcgaagct ccagtgaac gcgtctggga 420

agttatgacc gactatg 437

<210> 5118
 <211> 371
 <212> DNA
 <213> *Cyanidium caldarium*
 <223> unsure at all n locations
 <223> Clone ID: LIB190-055-Q1-E1-E7
 <400> 5118

ggtaacggtc aggaattccc gggccgaccc acgcgtcaaa aatttcattc atcgttgctc 60
 attcttggtg cagatatgac aggtcctggt aaaagtggta aaggtttaag aaaaggaagt 120
 tcaaagcgtc atcgcaaagt cttgcgagac aatatccaag gaataaccaa accagctatc 180
 cgtcgttttg cgagaagagg tggagtgaag cgaatctcag gacttatcta tgaagaaaca 240
 cgaaatgtcc ttcgtgtttt cttggaaagt gttattcggt atgcagttac ttatacggag 300
 catgctcgtc gcaagacggt aactgctatg gatgtcgat atgctctgan acgtcaaggc 360
 cggcaccttt a 371

<210> 5119
 <211> 436
 <212> DNA
 <213> *Cyanidium caldarium*
 <223> Clone ID: LIB190-055-Q1-E1-E9
 <400> 5119

cccggctgga cccacgcgtc aggagaaaag aaaaagaaat gaggaggagta gtacaaggag 60
 cgaagatgat gggagcagga atggcaacga taggttttagc aagagtaga gcaggagtgg 120
 gaatagtatt tggaagtttg gtgaatgcat atgcaaggaa cccagtattg aagcagcagt 180
 tatttgata cagcatatta ggggtttgcgt taacagaggc agtaggactg tttgcattga 240
 tgatgagttt ttttgaaacg gtttcatagt ataggagaaa caagaagtag aagagaaata 300
 caagagacag aagaggagtt atgagagaaa agatggaagt aatagaagtg gtaagtggag 360
 taataatgaa tcatatgaaa gaaggaatgg agaataaac gaacgattac atgaacgacg 420
 agataatagg agaaat 436

<210> 5120
 <211> 438

<212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-055-Q1-E1-F1

 <400> 5120

 cacgcgtcag cccaagcgtc cgcgacgcg tggcgacga ttttttcac gccgtaagag 60
 cgcgccacaa tgccgactcg aaagctgtac gtccgtaatg tttccaagca tgctactaag 120
 agagacttgg aagacctgtt ttccaaatat ggaagagtaa gggatgttcg gttgttaact 180
 gactaagctt ttgttgagat gggcgacgaa agagacgccg aagacgctcg ctattaactg 240
 gaagggaaga gaatggaaag gtaacgttta aaaagttgag tttgcaaaaa acgagagagc 300
 tcccccaagg caaccaaagt gctaacaact gccggtttac tgggtcactt tgctagggag 360
 tgtcccaatg gttactggag taaccgttgt taccgctgcg gggaaaaggg gcatacacia 420
 aaggattgta cggtcctt 438

<210> 5121
 <211> 422
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-055-Q1-E1-F10

 <400> 5121

ccacgcgtca gcagacgcgt gggcggaat attttcaatg agaaacgagc cgcttggaag 60
 gctttgttct cagaagtttt cactgagaga caagcacctt ttctatcgta ttttccttag 120
 gtactctact acctcccatc ataaactgca gcacgaacga gttgtgttat tgcacggctt 180
 tctaggtttt ccgatatcag gtattattca agtatccagc aatatgtgtt tacagtttgt 240
 gaaattgtaa ctcatctttt ttatttatac agttatcacc tttagctact ttactaaaaa 300
 gaaaggggtt ttcagtttcg aactttggat acccttcaag agacgacttt atctcgggtc 360
 atgcccataa cttggtcgat gccttgaata gtttagcggt aagagacacc tgcaagtttc 420
 ac 422

<210> 5122
 <211> 353
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-055-Q1-E1-F2

<400> 5122

```
acgcgctcagg aacaacaatt ggtgcctcat acttggtaca agtattattc tgtacccaag 60
tttattgaaa agtgcctatcc tcagtatgca acaacggaga aatgtgtaga gtatgagtat 120
gttccatatg ccactttctac accttatcca tcggtatctc caagttatac tccttcagca 180
tatcaaacaa cttctgctta ttaaagagcc gaagactgga tagatttttg aagtgtctcg 240
tgttcaaaga aaacatgaga cataagaaaa agtaaaggat ttggttttat gtataaaaaa 300
aaaaaanaaa aaaaaaaaaa aaaaaaaaaa acaacacaaa accaccacac ccc 353
```

<210> 5123
<211> 424
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-F3

<400> 5123

```
gcgctcagctt aacggctttg gcacgtaact tttccaatgt ctgtctctcg aggagtggtc 60
tgagagggggg atgtttacga aatgtgaaag ttttcaacca caaacgacct gcaaggttgt 120
tatctacgaa aatgagaaga ggcgaccatg aaaggagaga acttagtcgt cctatgcgta 180
cgcttgattc cgctttcgat gaacttttag cttttgcgca ggatccctgg tccatgtttc 240
gctctccatg gagtctgtct cccaaaaagt atggcagtag acacgtggat gcctcgtggt 300
gacttggtgg agaaggaaga tggcttttat gcatacgtgg aactgccacg gcctagccca 360
aaagacctta aaggtcgaat ttagaggaga cgttgttact atttctggag aaaagaagga 420
tgaa 424
```

<210> 5124
<211> 443
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-055-Q1-E1-F4

<400> 5124

gggtcgagcc acgcgtcagg cgcaagttat gttgggtgtc gatattctcc gtctgcagtt 60
 ggaaaaactg caacactttt tagcactagt ggatacgaaa ccctcaatgt ctatagtatt 120
 tttggcgttt aatggatgga tacttttggt ttttaatagt tttggtcttt cctggatact 180
 ccttgcgctt ttcagaaaac tagacctcat ccaacgttct gattggctgt cactgagtcgt 240
 ttccaacttc aacgcttttg ttggctgttt actggttgca aagtttgtgt ttggagaaga 300
 actgctctat cggacgggag tcttttcccta cagcgcagct tgttggtggc tctggaaatt 360
 aattcttgga tacttttttt atgatagttt gttgattatt ttggtatttg aagttcacga 420
 naccataaat attcaaacca tta 443

<210> 5125
 <211> 450
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-055-Q1-E1-F6
 <400> 5125

aattcccggg cgcacccacg cgtcagccca cgcgtccgga tgagcgggga agccttgggc 60
 gagaagctta aaaaccttcc tttggaagac caatttcaag cagagtatgt ctggttagac 120
 ggtaattttc acccaagatc caagggaaga actttaaatc tgagggaactt cgggtccgcc 180
 cctcacaaag cccttgcttc tgcatttccct gagtggaaact atgacggctc cagtactggt 240
 caggctgaag gccacttttc agaagtcac ataaagccct gtgctgttta tctgtatcct 300
 tttcgtggcg gcaataacgt actcgtcctt tgtgacacat actggcccga tgggtactcct 360
 catcctacca atactcgaca tcattgtcca gaagtgatgg aagcagcaaa ggatctggag 420
 ccttggtttg gagtggaaca agaatacttt 450

<210> 5126
 <211> 352
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-055-Q1-E1-G10
 <400> 5126

cctggaatac atccaacatt ttattcaaga taaaaaacc aacttgctgc cattcgtctt 60

ggctaaacga atcaaagctt gtcgtagctt gggatccatc cccacatact tacagaactc 120
 cgtgatcact tgtgaatgca gagcaatcgc ttttcctcgt atcctgttaa acctatcctt 180
 gcccagacc catcgcgta cgtatacaat aggagtgaag ggaccaaagt cggaacacct 240
 tcccatgtaa aactcaatc ctagtcttct aactctgctg tcactaaatg aagcaaactc 300
 attgcttctc agtctatagg agcaacaatt tgaaacaaaa agagaggaac ca 352

<210> 5127
 <211> 207
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-055-Q1-E1-G12
 <400> 5127

agtaaataag atgcatggaa caaaaacaaa cgaaaaaaat catagcatca acacatacgg 60
 atacttaaac cgtcaaaact aactcattaa gtcacagacg ttttcatact acgtcgggat 120
 ccttgccgca tctttctagt ttgcgtttgt ccaatctcgc aattacattc gttccattga 180
 tatcaggtcc agttgggttaa tcccgt 207

<210> 5128
 <211> 436
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-055-Q1-E1-G2
 <400> 5128

acgcgtcagc ggaagcgtgg gcggacgcgt ggggccaaag gtctcagaag ttcaaggctc 60
 taagatagtt gcaggtctcg atattgacaa gataataagt ttggttgctc aagtggagag 120
 tcaactcagc catccttatg caaatgctat tggtcggtac gcggaagaaa ctgcagggtt 180
 gcatgtttca aagcaagtcc aatcttttga agaaataccg ggttggtgtg tgcaatcgat 240
 cgtctccaat catgaaatat tcataggaaa cttgaaatgg atcatctcca aatgcggtac 300
 ctcacaagaa cccacanagg attggttggg taaggaatat ttagaacagc tacagagtgt 360
 gatgaagaac ggaagtactg tcgtggtagc tgccatagac gatactcctt gcattgcatt 420

<210> 5129
 <211> 365
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-055-Q1-E1-G6
 <400> 5129

gacccaagcg tcaggggaaa gttagacttc cccaaagttt tatcgcaagt acaagacatc 60
 gttcgacaac gtttcttcgg agacagtaca aacgggggtct atagtcttgg tgtacaaaaa 120
 accctgtttg acattggtgc gcagattctt atgtcttgtc cgctcttggg gaacgtatcc 180
 ctaagtatgc caaacattca ctatttacct gccaatntag aagtgttttc gaagaatggg 240
 gttcgatttg agaacgatgt ttacattcca acggatgagc ctcatggcac tattaaggca 300
 acgttgtcaa ggtcttgcct tgcaaaattg taaagtgat tcttgctttt gaaaaaaaac 360
 aaaaa 365

<210> 5130
 <211> 455
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-055-Q1-E1-G7
 <400> 5130

aattcccggg ccgaccacg cgtcagccca cgcgctccga accaactacc accaaaagta 60
 gcaactgcaa ggaagaacag agtgtcctaa agaatagcaa gttgtgatga ggagaattgg 120
 tagcaaaactc ttgtcttatt ccggcaatga agtaaaactt cgggatgttg tttcttctct 180
 aaggagagac agtaaagcga cgggggtcttc catccggagt tggcttcgtg atatcaacca 240
 gtgggtatgaa gacacttact ataaaaaggg aaaggtggat cctttggtac attatatgtt 300
 actttgtttt ggagtgggat ataccatcaa ttactcccat atcaaacata aagtggagca 360
 taagaatgac gatatcgaaa gccttgtaaa ggacaccttg tgggtgtgtg gtgatggctg 420
 acgcatagtt ggtgatatag gaaggtttcc ttctt 455

<210> 5131

<211> 429
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-055-Q1-E1-H11
 <400> 5131

ccacgcgtca ggacggaaac gcagtggacg ttggagtcgc ctcaagatgt agaaaacttg 60
 ctcagcaaca caaaactgta tccaccacaa ccaagttgca agctttcttt ccattacaag 120
 ccttcggacg aacagtggga taaaattttg gaaaagggtt tcaggtactt gtccaacgat 180
 ggaacgctcc aactggagtt gtgtcaagga gtagacaacg cgggtgctct aaagacggaa 240
 ctcaaacttt gtgggtttta ggacattgtg gtggaagata gttccgtgga gaagaaaaca 300
 gtgtggaccg caaggaaacc caactgtgac tttggtgttt ccatgaatat tggaaactcc 360
 accacagctt ctacgcacag cgggtggaaac actaggacca acaatgaaac cgtgcaatta 420
 tggacacag 429

<210> 5132
 <211> 452
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-055-Q1-E1-H6
 <400> 5132

attccgggcc gaccacgcg tcaggagaat acgtcgtttg aacgaacaag gagaagaaga 60
 agacaaagaa gacgaacaag aagaaatgca aagtgaagag ttgacaagga gttgttcgga 120
 attttcttct tcgtattctt ccgaaatggt agactgtata acctcattga gcgatgacga 180
 cgaagagaaa gagtcgttcg tggcttctcg acttggacaa aaactgggaa agatgctgga 240
 tagttatgcc tcgcattgta gtggaaaaaa taagactttg ttgtttcgtc atgttccgga 300
 cgacacacca acgaagcatt ggcttatcga caagttcaag ttaccaacga gaaccttacg 360
 ggttaccttg tcaactggag tttgtccaaa aaacgaagaa taagagtttt gcataccaaa 420
 acacgctgtc caagtggctt cccgtcttga aa 452

<210> 5133
 <211> 454
 <212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-055-Q1-E1-H7

<400> 5133

```

gaagtcccg ggcgaccac acgtcaggta caacacttgc atttcttgca caaaaagtgc 60
cagaattcga gaaaacgtta agtgacgagg atgaaagatt aggagcacia attgttggtc 120
gagccttgga agcaccgctc gttcaaattg cgacaaacgc tggaaaagaa ggctatgtgg 180
ttcttaatga ggtacgtaaa aaggaactcg gctggggatg gaatgcggca accgatgagt 240
acgtcaactt ttatgatgcc ggaatcgtag atcctgccaa ggttggttgt tgggcgttgg 300
agaatgcagc gtccattgct tctatggtag taactacgga agctttgggc gttgaaattc 360
ctgagaagac aaagaatacg tccttcgggt gaaaatggaa tgggagattt tacaggagaa 420
agctacatgt aaaagtagcg ccatattcta aaat 454

```

<210> 5134

<211> 306

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-055-Q1-E1-H8

<400> 5134

```

taccggtcta gaattncgg ggcgaccac gcgtcagggt acaggaagag atggaacgat 60
tcggtcgctt tttatcaccg aaaacagaat atagagacga tgtgagtttg gataaagtgg 120
atgtgaatat gtggaaagca caacaacgag agcgttggtt ttttgggaga gagttttcgg 180
cacaagagga taggctggaa gacgaccaa aagggaatga ggangaagac gacaaggacg 240
atggcggtga tgtggactat aaaaacttgc aacgacttgt gaaataaaat ttttttggtt 300
gtgcac 306

```

<210> 5135

<211> 221

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-A10

<400> 5135

cacgcgtcag atctattttt ccaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 60
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120
 aaaagaaaaa aaaaaaaggg gggccgcca aaaggatggc aacccacact acccggtccaa 180
 ggaacgtcaa agccctccaa aagggccacc taactccaat t 221

<210> 5136
 <211> 71
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-056-Q1-E1-A11
 <400> 5136

aaaaggggtcc aagcttaagt acgcttgcac gcaacttcac agctcttcaa tagtgtcacc 60
 taacttcaat t 71

<210> 5137
 <211> 433
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-056-Q1-E1-A2
 <400> 5137

aattccggga tcaccacggg cccgagaagg aaggtagctc agtgtattgt tggaggaagt 60
 ggaaagaaaag ctattggagg tgatttagaa ggtggctatt acattgaacc gacgatattc 120
 aagggagata acaagatgag aatattccaa gaagaaatat ttgggccagt tctgagtgtc 180
 acgactttcc gtacagaaga agaagccatc caaattgcc aagatacttc gtatgggttta 240
 ggtgctggtc tgtggactcg agatattatg aaagcttacc gcgatctcg agcaatcaag 300
 gctggctcgtg tttgggttaa ctgctatcat gaggatcctt ctcatgcggc gtttgggtgt 360
 tataagaagt cacggtttgg tcgtgaatgc cacaagttga ctttggagca ctaccaacaa 420
 ttgaacaaca tta 433

<210> 5138
 <211> 228
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-A7

<400> 5138

taccggtcta gaattcccg gccgaccac gcgccaata gtcccgccat cgtatatact 60
actgtccaat gctacctcaa gttagcttcc gatcgagtag agcaaggaat aagttttggc 120
tccaacctgg acttttaaata tgcggcaaaa cttgtccgtg gtgcttatat ggtgtttgaa 180
cgtcgagtgg cagctgagaa aggttatgct tcacgcgttt ttgaccgt 228

<210> 5139

<211> 448

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-B10

<400> 5139

ggtcaggaat taccgggccc gcccacgcgt cagattggct taggaatggg tgccgctgca 60
aaactggctg gtccttctcg tctgatcgct ttggattgta tggattcaag actagatatt 120
gcgagagagt gtggggcaga catagtattg aatcctctta aaacaaacgt cgtaaaggat 180
attcaagaac ttacggatgg atatggatgc gatgtttatt tggaagctac tggaaatcct 240
aagagcgttg aacaaggctc ctatatgatt cgcaagaatg gaagatttgt agagtttagt 300
gtattcaaag acaagactgc tgtggattgg acgattattg gagacacaaa ggagttggat 360
atactaggag cacattgcag tggagataat ggatataaag tagctattga tatgactctc 420
cgtcgccaaa ttcctgtgga gcgtattg 448

<210> 5140

<211> 450

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-B12

<400> 5140

gtcaggaatt accggctcga gccacgcgtc agcccaagcg tccgacaaag tgtcgtttac 60
aaaagaaagt atcacatatt ccctcgtatt gtgtgaggat gagttgggtt gcaacttta 120
aatcttccaa aatagaaggc tcctctgcta ttccagaagg tgaacagcct gacctccata 180

caaagtggga gcagtgttta caagagaaag ggtcaccaga gtgccaacag tgtcaagggtt 240
caggacaaat accatgtcct gcatgtgaag gaaaggggta tttcgtgatg gaagttttca 300
atgttacctc tagtaaccag tgtcaagttt gccgtggaca ccgtaaaact ccttgcccaa 360
cttgtaaaga atacatttat cgggcagtaa aagatttatg atataaagtt aaactcaatc 420
tttacaatg gaaatattgc ctccagtaac 450

<210> 5141
<211> 388
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-056-Q1-E1-B5
<400> 5141

acatgcaagt aggtaaagcg aacgggtgag taaagagggtg tgaaagagtg gaagaacatg 60
aaagcacaga agaatgtaag aaatggttag agtaaaaacc ataaaggaag taaaagcggg 120
aatctgagag gaggaagacc acattggaac tgagaaaagg tccaacaag ggagtagatg 180
aggaaagaaa gatcaaggaa gtaagagtaa gagaaggagt aatgtgaatg aaagcaggaa 240
agtatttgaa gaagagagtg taaagcgcgt accttttgca taatgtccca gcgagtgaaa 300
gaggaagcaa aaagaaagaa aaagaagtag ccaggtaaga cccgaagcta gttgatctta 360
tgctgtccaa gccaagtaag gctgaacc 388

<210> 5142
<211> 421
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-056-Q1-E1-C10
<400> 5142

acgcgtcagc ccaagcgtcc gggctgaaaa gacacgcttt gtttggcttg actttattcg 60
agttcctcgt tgtcgaagag cagcagtcta cggcattctt attatgatcg ttcaacagtt 120
ttcaggaatc aattctatca attattatat gggaagtttg atgaaggaaa ctggattatc 180
cgcccagaat gcagtctata ctagtatgat tgggtggtggc acaggattcc tttcaactat 240
tcctgcaata tatctgatgg accgactggg acgtcgacca ctgttactta ctctcattgg 300

cggagtcgtg gcaggtttat ttattgttgg cttttcattc cttgcttcca atattcacac 360
 caaggaacgt atctatattt gggggcggtg tcatctatta tcttttctgg ggttctgctc 420
 t 421

<210> 5143
 <211> 432
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-056-Q1-E1-C11
 <400> 5143

acgcgtcaga ggaactcgaa tggtagaga actgtttcaa atggcacgtt*ccaagaaagc 60
 ttgtattata ttttttgacg aaatcgatgc catcggaggt gtcggttttg atgatggcgc 120
 tggaggagat aatgaagtgc aacgtacaat gttggaaatt gtcaatcaat tggatggatt 180
 cgatgcacgt ggaaacatca aagtgttgat ggcaaccaat cgtccagaca cottagaccc 240
 tgctttgatg agacctggta gattggatcg aaaaatagaa tttggtttgc cagatttaga 300
 aggaagaacg catatctttc gtattcatgc aaaaagtatg aattgtgaac gcggaattcg 360
 ctttgaacta ttggctcgtt tatgtcccaa cacaacaggt gcagacatac gaagtgtttg 420
 tacagaagct gg 432

<210> 5144
 <211> 358
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-056-Q1-E1-C12
 <400> 5144

acgcgtcagc ccaagcgtcc gatatttgat aaaatcgatg tgaacggtcc caacgcatcg 60
 ccagtttatt cttatttgaa acgtgcctct cataccggcg atattgaatg gaattatgtc 120
 aagttcctgg tgagtcgca aggtaagggt ttacgttttg caccttggaac agatcccctg 180
 caactggaac cacatatccg agcttggttg gggtttactg aataatctat cgtgtgttcc 240
 gtatctcttg ttatgaaagt cgcgtcattc taaacgtgtt tcttcacgca agacacgact 300
 ggatttcaaa agagataaat aaatattatt taccattcca aaaaaaaaaa caatacac 358

<210> 5145
 <211> 298
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-056-Q1-E1-C6

 <400> 5145

 aagtttggtt gttttcttgg tagcagttgt acattcaaca tcatcaaatg ccaaagggag 60
 gaaagaaaga ttcttcaaag aaagaagcca caagtaaacc tgcagcagca gatgctacaa 120
 agacgacaga aaagtctggt ccggaagcca agttgaaggg aactggtgca aagaaacaat 180
 aaaaagttga ctatgcatgt tcctgttatg ttttgtgagt tctgtttgat agtttccagc 240
 tattcttttg gtagtgaata aagagaaaat tttttatatt tacaaaaagt acaaaggg 298

<210> 5146
 <211> 428
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-056-Q1-E1-C9

 <400> 5146

 acgcgtacgg tttagtctac tcacgaaaag tattgcacca gttactaaaa gcattttggt 60
 atccacagta aagtataata gtccttttgc gctgagtaaa gcagagatat ggagagcttc 120
 ttatccaact ggaagcagac gttcctttgc agaacaaaag gcacagcagc agtccaaaga 180
 aggtgaagaa ccaataacgc cttatcaacc tgtgacggag aagctggata aaagagaccc 240
 aaactatcct tggaagtgga gaagttttct tcagaacat acctataaac ccaacctcaa 300
 tatcaatctg gaaaggcatc atacaccttt agattttaga gatagagtag ctcggggaat 360
 cgtcaagttt ttaagatttt ttgcagatgc ctttttttca gaaacgatac ggacaccgcg 420
 ctgtttgtg 428

<210> 5147
 <211> 316
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-056-Q1-E1-D1

<400> 5147

attcgcggtgta cgacccacgg gcccggtgtt gtgtaaggca ttcctccaga ctgggacgat 60
gccatgttgg ccaatttgtt tcttcctttt ggcaaattgc tatcttccaa tgtgtttatt 120
gataagcgta cgcagagaag taaaggattc ggatttgtga gttatgctta tcttgattcg 180
gcacatatgg caattgttat gttgaatgga atgactttac caaatggcag aacgctaaaa 240
gtttccttga agaaggataa aaacgaaaat ccaagcgaat aaatgaaaat ttcttctttt 300
gggaaaaaaaa aagcac 316

<210> 5148

<211> 429

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-D10

<400> 5148

acgcgtcagt tcgaacatac attgatgctg tgcataattct gaaaaagaag aaaggccgcc 60
tctccaactc aacggactgt atggacacca ctagtgacta ctatcatatc agttctgaca 120
cttccgaaaa tgccttgtat tattttgaga gagaaaggat cattcgagag atatcccaag 180
atcctttttt gtacgacaag ctgagtcgtt ccatagcacc atctatatat ggacatgaag 240
acttgaagaa aggtcttttg ttacagcttt ttggaggaac cagcaaagat ttttctatca 300
gtggaggtgg ccattttcgc agtgacatac atattcttct tgcgggagat ccaggaacaa 360
gcataagctt gtttcgtcag tatgttcaca ggattgcccc tcgtggtctc tatacttctg 420
gcagacgct 429

<210> 5149

<211> 431

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-D11

<400> 5149

cacgcgtcag attcgaggag agagacagac agatggccaa cgctggtcaa gatggccttg 60
tgcaagtcaa caaacataga aaagtaaaga gattgcaaga agataatatt ttgaatagag 120

cactatcaca accaggagat gtatttctgt gcttttgcaa catccagttg ttggtgaatg 180
cagaaagagc tattatagga aatattactt gtccagaaag tatcgaattg tgcgtctat 240
tagctggaca tatagcgggt tggttcgatg aacatttggg tgactttcgt ttggaagcta 300
tcttgggagc actatttgtg acttgttatt gtgagtggaa gcgttttgaa cgagaattgg 360
gggtacaaga atggaatgaa ttggggaaga tatcttccct agatacttgg aagcttgtgc 420
ttgttacaag a 431

<210> 5150
<211> 228
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-D3

<400> 5150
attcccgat cgaccacgc gcccgacttg ggggcattct tactcaggaa agaaacgtta 60
tgacaccgtg gagaaggaca cagagaagga accaagtata tttgagatac atgatctgtc 120
caagaaacag agtggcagcc aataagaaga gagtttgtga gttttcaata caatactgtg 180
cttgttgta taattttcca taaatgattg tacatgctgt tttgttgg 228

<210> 5151
<211> 447
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-D7

<400> 5151
acaaattaag gtgagagaat ggacgataag gaactaggca aaaggatatg gtatctgcgg 60
tagaacatat gaaagaagca gcaccgactg tttagcaaaa acacagcact ctgcagaaaa 120
gagaaaatgt aaagtataga gtgtgcggcc tgccaaatag tagagaagaa atcgatgaaa 180
gtgaaagcga gtaaaagatg aggtatagag aatggcggtc ctaacggtaa ggatccaaag 240
gtagcgaagt aaatagacgt ttgaaaggcg tccagtatga aaggagaaac gagtgtagca 300
ctgtctagtc gtccaactca gcgaaacagc aataactgtg aaaatgcagt aaactagcag 360
taggacggaa agaccccata attcttgact agataggttt agggaggaga gagaatcatg 420

aagtagagga cgtggggtaa gagatga

447

<210> 5152
<211> 429
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-E10

<400> 5152

cacgcgtcag agcgggtggc ggctttttac gacgacgacg acatgggtgg tgcttctgt 60
cgaaaccttt ttgtactaga gttgaagaac aaggaaaact tatagtatcc gaaaccgaag 120
atgatacccg attagatcgt ttcttgagac gccgtattgg tagattgcct cagtctttat 180
tagaaaaata tatccgaaga ggagttgtaa agatagatgg gcaagtagta aagaaagctg 240
gggaaagagt tcgttcttct tccgtgggtgt atattcctag acaactagaa agcttggagg 300
aaacaacagg ggacgacaat gtggagagta gtcgcctcca tcagggggat ggcgctatga 360
tgatggacag aaaggaaaca accttgtcta cccaagtaac aaatagagta cagagttggg 420
tgctttaca 429

<210> 5153
<211> 427
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-056-Q1-E1-E11

<400> 5153

acgcgtcagc ccaagcgtcc ggggcgccgc tttgtatatt ttttgggtgg gtttggtgaa 60
tcgatcctgt gttcgtcgac ttttgtgtgt ctcttgaaat ggcttccaat cttcaaacag 120
acggcaccaa cgttccact tttaaaatta tcttggtagg agacggtgga gttggtaaaa 180
caacttttgt gaagcgacat ctttctggag aattcgaaaa gaaatatatt gccactgtag 240
gtgtggaagt acaccctctt aaatttcata ccaatcgagg ccctatcggt ttcaacgtgt 300
gggacactgc tggtaagaa aagtttggag gtttgagggg tggctactat attcaaggac 360
agggtgctat tattatgtnt gatgtcactt ctagaatcac ttataagaac gttgccaact 420

<210> 5154
 <211> 431
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-056-Q1-E1-E12

 <400> 5154

```

acgcgtcagc ggaagcgtgg gttaaagttg gatgctgaga gttttttggt ccctgtgcat   60
agtaattcag gaattgggtg gtggagaaca agtttccggt tatccgaaga aatatataca  120
acttgcgacg gtggcgattt tcacatgcc a ttgcacttt gtctcagtgg aaatgctcac  180
tgttttgctt ggatcaatca gttgcagatt gctcgttatg tggcaaagt tgggtccacaa  240
aatgtatttt atattccatg tggcttgctg tatagaaacg aagaaaatgt cttgacaatt  300
atgtattata cagagcatga aagtgcccaa gttggtgttc gaataactcc ttactttgtg  360
gatagcaaaa cgggggaactg gaaaactcac gacgaactgc agacaacgga tgttggtgga  420
cctttcgcaa c                                     431
  
```

<210> 5155
 <211> 290
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-056-Q1-E1-F1

 <400> 5155

```

attcncggga cgaccacgg gtccgcccac gcgtcagcgg acgcgtggga aagccaactt   60
atagttttac tccctgaata tagcttgaaa acaatcaata actgttcata ttcctgagta  120
tgttctctgt ctatcaaaa tgttgcgctg cgaatcttta tgactggaga ttatcgctt  180
tctgaaacat tttttagtta tgttggattg ttaagcatcg ttcgtatctg ataggctatt  240
tctgaaaggt tttcagtagt gtaataaaca agaaatgaac taaaacaaag             290
  
```

<210> 5156
 <211> 450
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-056-Q1-E1-F11

<400> 5156

ggtcaggaat taccgggccc agccacgcgt cagcccaagc gtccggtcag gtatctccaa 60
atttgtgcaa cgggttcaag aagtcttttg tcaaaggaat cgaaagggct ttgccgatat 120
ttgcacgcta cgaaagtttc tcaggcgtct aatgtgatgt gccgagatgc ccttaacagt 180
gcgcttgatg aagaacttga acgagacgaa agagtttgta ttattggaga agaagtagga 240
cagtaccaag gcgcctacaa agttactcgt ggcttgatg aaaaatatgg ttcaaggaga 300
atagttgata ctctatatc cgagatgggt ttcaccggtt tggctgtang agctgcattc 360
aacggactaa gacctgtttg tgagtttatg acctttaact ttgcaatgca ggcgatcgac 420
cagatcatca actcggtgc aaagacatat 450

<210> 5157
<211> 284
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-056-Q1-E1-F4

<400> 5157

attencggat cgaccacg cgcccgacca cgcgtcagcg ggaaagcagt aaaagaagaa 60
agagaaagga aaaaactgag tatcaggaag aaaagaggga gtagatgagg aaagaaagat 120
caaggaagta agagtaagag aaggagtaat gtgaatgaaa gcaggaaagt atttgaagaa 180
gagagtgtaa agcgcgtacc ttttgcataa tgtcccagcg agtgaaagag gaagcacaaa 240
gaaagaagaa gaagtagcca ggtaagaccc gaagctagtt gaat 284

<210> 5158
<211> 425
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-F6

<400> 5158

agtaccggtc tagaattccc gggccgacac acgcgtccgc ccacgcgtcc gccacgcgt 60

ccggccaagg caggttttgc tcgaagctgc acacttggga ttgctggag gcaagttgta 120
gcacctttgg tagttttctc attacttttc gttagttttg gaaaacgggt cgatgttcta 180
aaacagaaac gtgtccttta aggcataaaa tgtgctgact gaggaacaga agctgatagt 240
ttatgcggca ctgtgaaaag tccaaaatac acatatcttg tattgaaacg aatcatatag 300
tttttgtgac agcttccgca gtcagttttc taaaggaacg aaagaatgaa aatgtttcgt 360
aattaaaatt catgagatat tgatacattt agtaatacga taaaatcaaa cttctgggtcc 420
ctgtc 425

<210> 5159
<211> 452
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-056-Q1-E1-F7
<400> 5159

acggtcgaca attcccgggt cgacacacgc gtccgattcg tgattgggtt ctttatctat 60
tatttttctc acaatcctag ttttggaaac ttggcatggg tcgtcaatgg agagttgttt 120
gagtctcata ccagaaactt gggaatggca tcttgtgcgt tttggatctt tgggaatgca 180
gccatttcaa cctatacttt tagtagacag atcgaagcgt acggcactgt gggaacattt 240
gggtgtgtttg cagctattgt gtttgtattt tgggtgatat tcctctttgt gtttgtggac 300
acttccaagt tgagcctgga agatgtgaaa gaacgctttg aaggtggaat gagcgctatc 360
gtaagaagaa atacgagaga aatgacaaga cacgtgcaac gcatttgtgg gaaatatttg 420
ggaatggaat acaagggacc atagcaagac ac 452

<210> 5160
<211> 431
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-056-Q1-E1-G10
<400> 5160

acgcgtcagg tgacattctt tggaaattgt tgggtgaaata tgacaggaag aggaaaaggt 60
ggtaaagggtc ttggaaaagg aggagccaaa cgctatcgta aagtacttcg agataatatt 120

caaggtatta cgaaacctgc tattcgacgt ttggcaagac gtggtggtgt aaagcgtata 180
tctggcctta tctatgagga gacaaggaac gtgttgagag tgtttctgga aagtgttatt 240
cgtgacgcag taacttacac ggagcacgct cgtagaaaga ctgtcactgc aatggacgtg 300
gtttatgctt tgaaacgccg gggtcgtacg ttgtacgggt ttggtgggta agaggcaaac 360
aaagacatgg tgtttttcaa caacaccagt tgtgaaagaa acttgggttt cagtctcagt 420
agacccttcc t 431

<210> 5161
<211> 424
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-G11

<400> 5161
acgcgtcagc gtcacaacct gtcttagtgc tttgcgactt ccaaaatgat attatgggtt 60
tcgttcccc tgagaagaag gaagccgtca ttaaaggagc ttcgaaactt ttgaactttg 120
cccgtgagaa gaagatccct gtagttcatg tgggggtacg ttttagaccg ggacaccctg 180
aagtttcgaa acgaaacaag atgctttctc ttgtttctc cagaggcccc atccttgtgg 240
aaggtactcc tggaagtgc cacgtagcag agttgaaacc aattgaaggt gaattcagtg 300
ttacaaaaag aagagttggg gcacattata ataccgatct tacaaccatt cttagcgctt 360
tgggcgctac ccacctgatt ttgggaagtg gttctacaag cggagttatt ctgtcgaccg 420
ttcg 424

<210> 5162
<211> 252
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-G2

<400> 5162
aattccccga tcgaccacg cctccgcgga cgcgtgagtt tgtggttgct gttggtgatc 60
gacacgaaag atattatcgt gaaccaaatt catttatata tcattggaga atgagtccca 120
aaaaggaaac accgcatact cccaaaggag gctatgcaaa agctgtactt gatagcattg 180

ttgctctgaa ggagatgaat gggcctctc cacaggccat cataaaatat gtcaaggctc 240
acaatccgca gc 252

<210> 5163
<211> 441
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-G3

<400> 5163

attccccgat cgaccacgc gcccgtaatg ggaataatgg gaatgataaa tgtggtaagt 60
aggatcatata aaagcatgga gtatatggag aggataagag aagagagtag ggtgtatgta 120
ggaatgagta taataacagg aatgatatgg agtaaagaag tgtggggatc atgggtggata 180
aatgatgtaa ggaatataag catgttagta tgctggatat gggttgggaagt aataggagga 240
gtaaagaagg agtacagagg aataataagc agtataggaa taataaatat accgataata 300
aagtactcag tagagtgggtg gaataccttg catcagccag tgagtataag ctcatgggga 360
ggaagtatag gaagagaaga agtagaagaa atagtgaagg taataataat aggagtaatg 420
gtgagtatac agaagaacat g 441

<210> 5164
<211> 308
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-G4

<400> 5164

attccccgta cgaccacgg gcccggggtc atgttaccag aactcggaag attatggaca 60
cacgcatcgt gtttatgggt gcccaaggctt tggaaaatgt attgaatgat gccggattgc 120
aacctgaaaa atcaagtttc tattttgtga gtcattccaa cttgaaaaag atcgggtctag 180
gtgaaaacga aatttggatc gacttgcaat aactatcggt tgacagcggt tttctaattgt 240
gggtctcttga gtgtggataa aataccttgt ttcaccttaa aaaaaagaaa acagaaacaa 300
aagaaaca 308

<210> 5165
 <211> 489
 <212> DNA
 <213> Cyanidium caldarium.

<223> Clone ID: LIB190-056-Q1-E1-G5

<400> 5165

```
cgccggcaag taccgggtcca gaattcccgg gtcgaaacac gcgtccgggt gtgggaaaca 60
acagctttgt ggtgtagtgt tgccatgggt tccaaagaag aacaaaactt ggcaaccacg 120
tttcagtttg aagcacgttt gactcaagcc agtctaataa agaagatctt ggaggccatc 180
aaagacttgg ttaccgatgc aaactttgac tgttcggctg aagggtttatc tttgcaggca 240
atggactcat ctcatgtctc cttggtttcg attgttcttc acgctcaagg gttcgaaatg 300
ttccgctgtc aacgagctgt ttctctgggt atcaatctgg cgtcgttaac caaaatatta 360
aagtgtgcag gaaatgatga cagtataacg ctaagagcag acgacaaggg agataaggcg 420
gagtttgtgt ttgaaagtca aacgcaagac cgtctttctg agtttgaact gaaactgatg 480
gacatcgat 489
```

<210> 5166
 <211> 464
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-056-Q1-E1-G6

<400> 5166

```
ttccccgggtc gaaacacgcg tccagataat gttcgacttc gaatcaagg aatggaagag 60
gaagatattc ggatgggatt tgtatttgtt gacaccgatg ctttggttca aggactacg 120
ttatttgatg cacaaattat gcttttggac tataaaaata ttatttgtgc tggatacagt 180
tgtgtcatgc atgtacatgc agcagtcgag gaatgcacga ttgaaaagtt gctggcacia 240
gttgatcgaa aaacgaacca agtgatacaa aagcgaccaa aattcttaaa accaggaatg 300
gcagcgatcg ctgcgatatc tgtagcgcag ccaatttgta tcttaccttt caaagagttt 360
ccgcagttgg gtcgatttat tcttcgcgat gaacgaaaga cagttgcagt aggaatcatc 420
ctgaaagtgg ggcgtactaa tacgatagag tagcactctc acac 464
```


<210> 5167
 <211> 233
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-056-Q1-E1-G9

 <400> 5167

 gtcaggaatt accggccgag ccacgcgtca gcccaaacat ccgggcaata caactggatg 60
 gcagttaatc ttataatatg ggaaattcca gtcacatgtc gcacgaaaca gcactgggtc 120
 atgaacactc gagtctatca tcaaaggcat ctgcgtcgtga cacgagcttc acctgctaca 180
 cgtggacaca cgaatattcc gcactcggat gggacaagtc gccataatgg cca 233

<210> 5168
 <211> 443
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-056-Q1-E1-H1

 <400> 5168

 attcncggga tcgaccacg ggcccagacca cgcgtcagcc cacgcgtccg cccacgcgtc 60
 cggaaaagag agagtgtgtg tgtgggttagg aaatgcacaa tgtcattgac agcaacgttc 120
 aagtttagtc cacctcctgt gcatgtcaaa agagaacaac caatgtacaa tctgatactt 180
 gaatatgcaa gaagaaaagg aatagacaga attgtagaga tgaacggcaa atggtggata 240
 tataactagga cacctcccaa tcgaaaggca ctgcggtatt ggtatgacat ggactgcgtg 300
 gtgttgaacc cagtcaagga gttacacacg gccaaagctt atgcgagaag actaacagaa 360
 gcactggaga agagaactat tgtcgaattg ccagacaag atatttgtgt acgacgtagc 420
 gaccggaaga aacacggagt ggc 443

<210> 5169
 <211> 433
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-056-Q1-E1-H11

 <400> 5169

ccacgcgtca gcgagcagaa gattcaacaa aagtattgct ctcgctatgt tactgaagaa 60
gaagtacaaa gcaagcagtg catcaagtat gtatctcttc agaagatcaa gtacgagtct 120
tgctctgctc aatatgaagt tcaaaagatc aagcagcaac aatgtactat gacagtctct 180
gaacaatata tacagcccgga tacttgctac aagtatgtcc ctgaacaaca attgggtgcct 240
catacttggtt acaagtatta ttctgtaccc aagttttattg aaaagtgcta tcctcagtat 300
gcaacaacgg agaaatgtgt agagtatgag tatgttccat atgccacttc tacaccttat 360
ccatcggtat ctccaagtta tactccttca gcatatcaaa caacttctgc ttattaaaga 420
gccgaagact gga 433

<210> 5170
<211> 300
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-056-Q1-E1-H4
<400> 5170

cacgcgtcag cttaagcata tcattaagcg gaggaaaaga aaccaactgg aattccccta 60
gtagcgggga gcgaagcggg aagagcccac tatgagaatc ctctttttct tttgtgaaaa 120
gaagagatgt atttgaaaaa agacaagaaa tatctgcagc aagaaaagag caaatttcct 180
ggaatggaat atcatggacg gtgagaatcc cgtgtatctc ttttctttgt attcaaactg 240
cgttacgata tttcttggtg tggagtcggg ttgtttggtg ttacagcctt aattttgtgg 300

<210> 5171
<211> 432
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-056-Q1-E1-H6
<400> 5171

ccaagtacgg tctacaattc ccgggccgac ccacgcgtcc acccacgcgt ccgcctcgct 60
attgtcaagt tccatacggt gtgtagaaat ggagtcggag attagaaatt ggctgcttgc 120
tataggacaa cttcaaggac catacacaga gttgctaaaa atttatgagt tggatagcga 180
acagttggat gtttgtgaag gtttgtgtc ccaccttttg aagcaacaag aatattacag 240

aggagaacgt caggaatgag gtattcgcat attagaacga ctttattgcc aacttcattc 300
tctttgcacc aaagtcttta ccgcctcatt cacatcttgg aatacatagt ctgcaaggtc 360
tctaggggtca ttatctccgt cttccgagga gaaacaacct tgagggacat aaatataaaa 420
acggattatt ag 432

<210> 5172
<211> 475
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-056-Q1-E1-H7
<400> 5172

tacggtccta cattcccggtc tcgacacacg cgtccgggca acagcagcgc ttgtcgttgt 60
ggatgttcaa agagactttt gtgaaggagg cagtttgcaa gttccagggtg ctgaagaaat 120
aataaaacct attataatc ttcgtagcat ttttgatgtg gtagctttta ccaaggattg 180
gcattccggaa aatcacatat catttgctaa gaatcatgtc ggtcacaaca tatttgatac 240
tactgaagat caccacggag tgaagcagggt gctttggcct gtacattgtg tccaacactc 300
caaaggagca gagtttcatc cacttttaat tcataaagat agtgacatac tgattcacia 360
aggagttgat ccaaatatag actcttattc tgctttctgg gacaacgcag aacaaaggca 420
gacggaacta aagaaaaggc tcgtcgagaa gaatatctca cagttatacg tttgt 475

<210> 5173
<211> 429
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-056-Q1-E1-H9
<400> 5173

gccacgcgtc agctttatac ggaaaacttt caggaagtgt tgggttgata tttattttga 60
caaatcagt tgaactcata tttattttga caaatcagt tgaactcata tttattttga 120
cattattcca ccatcagctg tgaataaagg caaataaact taccctcatg ttggatattt 180
ataggttatt cgtaaaagaa aaaagagtaa aaggagact caagtatagc agtgtagagt 240
actttgagag gaggctgtat atataagttt ttgaggaaga agagccttct aggcagaagg 300

gtgaacacaa ttgttttagag attccagact cctagatctt gggtaaagaa gaagagtacg 360
aaggagactc aagtatagca gtgtagaata ctttgagagg aggctgtata tataagtttt 420
tgaggaaga 429

<210> 5174
<211> 347
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-057-Q1-E1-A11
<400> 5174

ggttcctctt gaggggaaaa ttgtggttgg tccgtgaaaa ccatggtggc agcttctcct 60
tctcgcaagt tggaaatata atgtggagta ttgaaaagaa cggtgaaaga tatatccgct 120
tatcaaaagg agttttaccga gatgaacgag caaatataac gggcaacacc cgatcaacca 180
tatcagcaat ggcaaaaagt gttggcagaa acggacagaa tggtatcgga ctctgtatatg 240
acgttatcgg aagcgggtaca cagtttataa aagttgcaaa cgcagatgga cactttgcga 300
ggaaccacac actggaaca agcctacgcg tctgctataa gaagcac 347

<210> 5175
<211> 360
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-057-Q1-E1-A2
<400> 5175

tcaagacatg tttaggattg acagattgag agctccgtct tgattgaatg ggtggtgggt 60
gcgacgtcta ggtgaagagt tggtagattg gagtgggtgct ggtggtttct tttagtggta 120
cgtttaggag cgggatcgag ggaggaggct aggacctcgg ttatctggca agcgtttaag 180
cgagcggggg ggtgagggga aaggagtgga cgagggagga caacaggagg gggaggggga 240
cacatggggg gtgtgtggtc ttctagcgaa gcgagctagc gagatggcca gcagcagctt 300
tgcagaaacg aagcggggcg cgagacgcaa agaaacaacc cccgcggagt tgtgtagtgtg 360

<210> 5176
<211> 431
<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-057-Q1-E1-B12

<400> 5176

gaccacgcg taagcatttt ggcgccaat agaagatgat gtctacaaaa ggccgtctca 60
atcaaataca gaaacttcac tttccaaagt aacagtcgaa gaatttttct catgaatgta 120
cgtgggctgg ttggcaacaa aatttgagtg atcagcataa ggaacaagat aggtatggga 180
tgaatagata ccatgcataat cttgtcaaag taaactatct atagatgtgg aggaaactag 240
agcatactga caatggagag ctcaaggaat agttgcaaca gtcattctat gtcatgtcct 300
ataaagagaa atgcggaatt gtgtagcaac aatcagctgc gtgttttgtg agccaataat 360
agtattgagc gcacgagaca catgatcccg acatgagcct aaaggcattt cactgcacat 420
gaggacatgt t 431

<210> 5177

<211> 363

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-057-Q1-E1-B4

<400> 5177

ttcccgagtc gaccaccccg ttccgccaag cgtccgcca cgcacccgag gtgtccgctg 60
ggataggcat atttatccgg gttatacgat accgccaac tatgacagta tgattggaaa 120
gcttactgtt tcggggccca cgagagacct ggccatccgt aggatgaaag gcgcactaga 180
tgaaatgaac attgcgggtg ttccttcac tattccttga cgcagggcta gttgtcagca 240
gtgagagatt cattgaaggc agggcggttg acacaaactt tcttgagaca gaagacattc 300
gttccaact ggtggcagcg gtatctactt tattgtaacg aaagaaggag cgtacttttc 360
gcg 363

<210> 5178

<211> 426

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-057-Q1-E1-B7

<400> 5178

accggtcagg cattcccggc ccgacgcacg cgtcaagatg gaggcaagga agtgacgcag 60
tagatcaggg agtaacacat gcaagtaggt acagcgaacg ggtgagtga gaggtgtcaa 120
agagtgggag aacatgatgg cacagaagaa ggtaagaaat ggggagagta aaaggcatag 180
cggaagtaa aagcgggaat ctgagaggag gaaagccaca ttggagcgga gaaaacggcc 240
aaggagggag aagtcaggag tggggaaaga gtcggaaggt acaggagag tatgaccgag 300
taatgaagag tggagtaaac aggaaaggag ctgaaaggag ggaatgaacg gaagttaggg 360
ganaaacacg tgccagcagc aacggtaaaa cgtgtgtagc aagcgtagaa cggaagaact 420
gggtgt 426

<210> 5179

<211> 388

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-057-Q1-E1-C4

<400> 5179

attcccgagc cgacccacac gtccaattca atccatttcg attgagccgt tttgcgattt 60
tagatacgaa acaaccaagg tattatctct gccgtgttgc tttcttagct ttcatactcg 120
ccgcttgttt cgagggacaa gtgtttgctg ctaagaaaag cgaagctaag gtctccagcg 180
ccacgtctcc aacgccagtt gctgaaagca acaatgagga gggcttctca gactagcaga 240
gaactcggcg ctgacaattg ggagaagacg ttggatggat ggagagctgc agtagttatg 300
ttttatcttt catgggggtga tgattgtaag gatatggagc cgcattttca ggggcttgca 360
gaatctgcct ctaatgaagt tagcgttg 388

<210> 5180

<211> 432

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-057-Q1-E1-C9

<400> 5180

gaccacgcg tacggcggaa gggagtggag tggcctattc tatggctttt gctttgcgtg 60

gtctagcgag tctttcaagt cgtttgagta cttggaaaca gggttacaag attgtaactg 120
 ttgcaaataa ttttgaacga gaaagaggac tgcgactggg gagttccttc caaagtgcgc 180
 ggcagtggac ttcgttgcaa ggtttggtat gtcgctatag aagtgcagc gttgtggagg 240
 gagggaaaaa gcaaaagggg gtcgctactg aaagaagtcc tgtttctaca gccattccca 300
 tgggttatgc cgatgaatat ttccatcacg tgcacgttg gcgtccagga gatccaagta 360
 aacgaacggg agtctatttg tggttgggaa ctgccaagtt tatcactgct tgtattgctc 420
 gagtaataat cc 432

<210> 5181
 <211> 429
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-057-Q1-E1-D9

<400> 5181
 gaccacgcg taagagagga attggaaggc gattgcttgc cgaaagagcc tacacacaca 60
 aaagtgtttt gtcgtatagg taaccaattc ttctgttcc atgtccaaac tgcaaacagc 120
 taccgttcgt tctgcagtag cagagatttt aaaagagtca caagagaaga aacgcaactt 180
 tgtggagacc gtggaactcc agataggact caagaactac gataccaaaa aggataagcg 240
 ttttagtggg tccattaagc tgccatatat tccaaaacct aaaatacaag ttgcagtatt 300
 aggagacgca attcacgtac aacaagcaca ggaacttggc atcgatgctt atgacgtgga 360
 agccttgaaa aagttaaca gacagaagaa gcccatcaaa aagttcgcaa agaaatatga 420
 cgcttttct 429

<210> 5182
 <211> 409
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-057-Q1-E1-F12

<400> 5182
 gaccctagcg taaggagagt gtgtttgtga gttgtgtgtg gtattgttgt tttacgtctt 60
 tgtgagtgc cactcgtagg agtgtgatga atcctcacia agatgataga cgacagtagg 120

acgatgttgt tttggtataa aacacccacg ggacacacac acaaaccccc accgcacgac 180
aacaacacac gcaaaacacc accccacacc aaccacacaa accacacaca caaacagggc 240
ggcccccta aaggatccac cctccccctg cgtccatgc aacctcacac ccctcccaca 300
gggtcccca agttcaactc acgggccgtc ctttcacacc ccctcaccg ggacaccccc 360
gggcgtcccc aacttaaacc ccctgccgga aaaccccccc ttcccccca 409

<210> 5183
<211> 403
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-057-Q1-E1-F4
<400> 5183

cgaccagggc gtccgcgttt tttttttttg cgttgggcca cgcgttagag aaagcaaagc 60
tgggcaagtt tccgcgactc aaagagagtg gtttcttaga ggtggaaaat ttttttcagg 120
aacttgctgc tttttcttgg gtttcttaga aatccgtgaa agtcgacatc ctacctatga 180
ccccgtcgag gcaaggaaat atgcacttgg tgtggaagca tacaatcatg ttggatagtc 240
ttatattgat gtccgtttgt atgccttcct ttgtggcgaa cgaaacagta cgtaagggtgc 300
ccttgagtgg gagaattgca acaggcatgc agtgcgta gggcgatcgt gcgaatcgtg 360
gtggtgtttc aacaaagggtg atagaaatgc aaccgtcgtg ttt 403

<210> 5184
<211> 394
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-057-Q1-E1-F7
<400> 5184

acggtcaggc attcccgggc cgacgacacg cgtcaggtag gggctacgac cctcgttcac 60
gaggcattcg gcccaaagga tagtcacaag agacgtttcc cttgacgcat ctgcagaaac 120
agaaacagag aaagtgggat ttcgagaaag actccgacaa gtgaggggaa atcgtagtgg 180
cgcctacttg ggaaaacggt aggacggagt aaaaccaaag cgagaggaag aactggacgc 240
aagaggattg tgtcgtagag atgggcaggt agcaggagga agctggttgg cgtgaggcct 300

ttcaggccag ggtattcgcg gattagggcc ctgaacta tggagcgaga aggatgggtg 360
gacatgaacg actttaatat taagatgggg gaaa 394

<210> 5185
<211> 350
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-057-Q1-E1-G2

<400> 5185

agagtggaag aacaggagag cacagaagaa tgtaagaaat ggtagagta aaaaccagaa 60
aggaagtaga agcgggaatc tgggacgang aaagccacag tggaactgag aagaggtcca 120
aacgggagaa gtcagcagtg gggaaaattg ggcaatgtac agggaagtat gacgcagtaa 180
tgatgagtgg agtagacacg gacggaagtg aaaaggacgg aatcggcgga agttagggca 240
aaaacgcgtg ccagcggcag gcgtaaaacc gtgtgtcggg ggggtagagc agaagaactg 300
ggtgtaaggg tcgagtagta cagtaagtgt aaaagggaaa ggaaaggaga 350

<210> 5186
<211> 431
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-057-Q1-E1-H9

<400> 5186

gacccaagcg tcagcccacg cgtccgccca cgcgtccgat actgtccgtg gtgtaaaaga 60
gaactgccaa aatgctgtat ttgtttgttc catctgtctt gttggaaccc tgcgtatgat 120
ccacctgtca ctttagataa gcagtgcgat gcaaagtatt ctcttgac gctagagaat 180
aacaaccatt ggtttacttg gtgcattcgt tgtcgacacg caagtcacat tcaccatata 240
ttacagtggg ttgattctgc aaggagagaa gaaacgtatg tttgtccagt gtccggttgt 300
aattgtcgat gttggatgga aggaggaaga atggcttgag ggtgcggcaa ttgtcttccc 360
acgcgctcgg cttgttgctg acgcgtgcc aattccttct ttcggccgca tattatttcc 420
cccacagagc a 431

<210> 5187
 <211> 322
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-058-Q1-E1-A4

 <400> 5187
 agcgtacacg tccacacatt gtccgattga cttgaaaaac acgaagaatg ggaaatgttc 60
 acggttctct tgctcctgct ggtaaagtac gacgtcaaac acaaacgggt cgcacacaag 120
 aaaagaataa tcgtccaaaa gggaggggctt ggcaaacact caagtacaat aggcgtttttg 180
 tgagtgatgt tgttagtttt ggtagagaa gatgtctcaa cgccaactcg tgaagcgact 240
 gcaatgagaa agacagtact ttacagcgat ttacgtctgc taaatgcttg cgggcagccg 300
 ctctagagga taaaactta cg 322

<210> 5188
 <211> 291
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-058-Q1-E1-A5

 <400> 5188
 aattcccggc tcgaccacg cgtacgggcc aatcaaagct agtgatagct ggtactctc 60
 gaaagctata taagtagcgt atgcaggaaa gaagaaggta aaggaagaga aggaagaagc 120
 agagagggac tatgagcgag aaggtggata gtcgagaggg aaaaagccca gaagccaaga 180
 taaggtatca aagtaaagaa agaaggaaaa ggagaagaag agagggtagg cttagaagca 240
 gcaaaccaga gaggaagcg ttaaagcatg aaagaaaaga aatccgaaaa a 291

<210> 5189
 <211> 341
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-058-Q1-E1-A7

 <400> 5189
 aggaacgtac gagaaagcca agtgaggaaa agaaggcaag tagagggcgg cccgagaaag 60

gagagggcgt aagacgtgat acagagtagg aagaaaagag aagagagcta gaaaggaggt 120
 aaaagaagag taaaaggact agaagaggta cggaattcac gaggaaggag cgtgaaggaa 180
 ggaggaatcc caagtaatcg aggaagaaaa agcttcggtg aaagcgtgaa cggattttgt 240
 acacactgcc cgtcaagtgc tggaggtgtg ctaggaataa gcaggagaag tagaagagag 300
 taggaaaaga agaaaggaag tgaagacgta agacgtgaaa a 341

<210> 5190
 <211> 429
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-058-Q1-E1-A9
 <400> 5190

gaccacgcg taagcggacg cgtgggggtgg ttcgagagat accactatac atcatcacga 60
 cgttcgtatc gcacaacatc acattgaaac acttcgagga cacgaacaag aagtttgtgg 120
 gttgaaatgg aacgtcgtatg gaactcagtt ggcttctgga ggaaacgata atttgttgat 180
 ggtttgggat aatcttcact ccagtcaacc aaaatatcgt ttagatcagc atcttgcagc 240
 tgtaaaagcc attgcttggg gtccttggca atctcattta cttgcaagtg gtggaggaac 300
 agcagataga acgatcaagt tttggaatac tacaactggc tcctgtttac agtccatcga 360
 tacaaaaagt caagtatgtg ctttgctctg gaatagacat tgataggaga tcgtcagcag 420
 tcatggggtt 429

<210> 5191
 <211> 437
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-058-Q1-E1-B11
 <400> 5191

aattcccggc tcgaccacg acgtccgccc acgcgtccgc ccacgcgtcc gattggatga 60
 tgcagaacat agcagtaagc gaaggtgaac taatcaagat tagaaacgcc aatctaccca 120
 aaggaacggt tgtcaaactt cgtccacaaa gtccggaggt tctagctata tcggatccca 180
 aagcagtttt agaagcgaga cttcgaaact tttcttgtct acccaaggag atacgatcgc 240

tattcattat ttgaacagaa tttattggat cgatattttg caagtacagc caggagatgc 300
cataagtatt attgatgcgg acgtgaatgt ggaatttgct ccgcctgccg atatggaaac 360
acagcgccag tgaaaacaat actgcaacca atactattcc ttctaattct cattctacaa 420
atatggaaag cggagac 437

<210> 5192
<211> 393
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-B12

<400> 5192

agcccacgcg tccggcgaac gggtagtaaa agaggtgtga aagagtggaa gaacatgaaa 60
gcacagaaga atgtaagaaa tggtagagt aaaaaccaga aaggaagtaa aaggacggaa 120
tgaagggaag ttatggcaaa aacacgtgcc atcagcagcg gtaaaacgtg tgtagcaagc 180
gtagagcaga agaactgggt gtaaagggtcg agtagtagag taagtgtaaa acggaaagga 240
aaggatagaa agaggaaagg gatgaaatgc agagatctct agagaaaagc aagacagaaa 300
agacaggaag acacagtaaa tgatgcgaga aagcatagc agtgaaactg attacgaacc 360
cgtgtagtct atgcagtaca tcaactccca atc 393

<210> 5193
<211> 331
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-B4

<400> 5193

gtggggaaag aggcaatgaa atggcagaag ctttagagaga aataagtgga agactggcgg 60
aaatgccggc agatagtggg taccctgcat atttggcagc tagattggca agcttttatg 120
agagagctgg taaggatatct tgtttaggct cccctaatac acaagggttct attactattg 180
tgaggagctgt atcaccacca ggtgggtgact tttcagatcc tggtacgtca gccacccttg 240
gaatcggttca agtcttttgg ggtttggata agaaactggc tcaacgaaag cattttcctt 300
cgggtcaattg gctcaacccc tattccaagt t 331

<210> 5194
 <211> 344
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-058-Q1-E1-B5

 <400> 5194

 gacccacgcg tacgggtttc accagtcggg ttgacagatc atcacaaacc atggaacaaa 60
 gtcaaaaaca gtgcttatgg caaacgacag gtgaaagtaa tatcccttgt aaaaaatgac 120
 caagtgatag aaaagttata caagaaagtg gttgtgtgta tacgacaaca aagttattcc 180
 ttggctttga atacttgcag agcagtattg gaaggtggtc tcgactgcct ggaagtctgc 240
 acttgtttct atccaggttg atgtacactc acatactgac tagataacac taacaactcc 300
 ggatgccttt gagctgattc atacagtcgc tagtgagtat cccc 344

<210> 5195
 <211> 407
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-058-Q1-E1-C10

 <400> 5195

 taagaaagga aatggtgatg gaataacttc tgtttcattt agtcctcgtt ctccttatcg 60
 tattgcgact gggttcgttg aaaagacagt gagagtattc gatgtagaga ccggtgaact 120
 tttgcacaat tttcgtcaac atgcagattc tgtatattct gttgcctttt cgagtgatgg 180
 aagatatctg ctatcagggt cacttgataa gaacggtata ttatgggatc ttgcagctcc 240
 ttctccaaat aactatacaa ttttcaaagg ccatactgac tttgttttgt ctgtcgcatt 300
 tagcttagat ggtcctcttc tcttgagtgg cagcaaagac cgtactgtta ctttctggga 360
 cccgagaatt ccttctggaa gtattggcat attggaagga cacaaaa 407

<210> 5196
 <211> 167
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-058-Q1-E1-C3

<400> 5196

acgcgctcagc ccacgcgtcc gccacgcgt ccgctttttt tttggtgaaa gaacatggca 60
cttggaatg aataacgccg ttcaaaaaaa tgcaagggag tgaataccag gttgactgtt 120
gagtttcttt caactgaatc ccttacggca gttgctacca gtcattt 167

<210> 5197

<211> 304

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-058-Q1-E1-C4

<400> 5197

gtggttggtg acaacgacag gtttcgacgt cgacgatgcc taaacaaatc aaagatatca 60
aggaatttct gcttttggtc cgcaaaaagg atgccagagc catcacaatt aagaaaaaca 120
agaccaacac gaaattcaaa gtccgttgca gcaataatt ggaaaacttg gtaattaaaa 180
gaaaagacaa ggcgaacacg ttgggacaaa gtctccaca agtttgactt tgaaaaagat 240
tgattagaca taaactctat cgttgttggt cttgtanaan anatnnnnnn nnnnnnnnn 300
nnnn 304

<210> 5198

<211> 348

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-C5

<400> 5198

aattcccggc tcgaccacg cgtacggtct catatgtgtc gattttacgt caaacagta 60
acgcggatat gagatagcat tctaatagaga gtcgaggtac cgagagttag ttgggaaacc 120
taaaatttac gtccatttgt gaagctttca aacatatctc ttttctcttg tataacggaa 180
atgtgatttc gagagagaga gagagagaga agcataaggc ttcgactgat gaactttaa 240
gtttcattcg gaaaaatagt gcagtaggca aaatgcaaac ttggtaaac ttgggctctc 300
aagctcctgg gataggcggc aattatgtct tgtccctcga ttcctaata 348

<210> 5199
<211> 337
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-C7

<400> 5199

aattcccggc tcgaccacg cgtacgcca cgcgtccggg gcaattcgag ggcgaagat 60
gatgtaatga cgtgaacaag gtgcttgtga acaacttggg cactatgatt ttgttgttct 120
cttcaaagtc aaggagtttt tagtaaacad attcgttccc ttagctttac aattcatgga 180
cacctgttgc cacagttctt tgtctgcaac tctcttggag gggttccccc agtcgttacc 240
accaaagttt ttggtggagc acctcgacca gttgcttggg gtggacctgc gttgctctca 300
actgtacagt ttgggacaca ttagacgttc ttacagt 337

<210> 5200
<211> 437
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-C9

<400> 5200

aattcccggc ctcgaccac gcgtacgcc acgcgtccga gtaccttgaa aaaggaacct 60
catcggttga acgaaatatc tgaacatatg ctttctgatt ctcaaaagcg agctttgttg 120
gagtatttga cctgttgtgg ttgtcattgt gcttggaaacg cacggcctaa tgctcctttt 180
attgttttga aggcaaacga tagttgcatg gaatacaagg tatattggta ttccaagaaa 240
gatggaagga agattcattt cgattgttgg gagtataaca gcaatgaacg catactttac 300
ggttgtgaag agcagcaggt ggcttccgat tggaatttat gtgtagaata tggcaatggt 360
cttactgtgt ttttaagtaa ttcggtatag atacaaagca acagtgtgtg tgtgtgtgta 420
tgacaccaca aaatggt 437

<210> 5201
<211> 450
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-D12

<400> 5201

aggtaccagt tacgaattcc cggctcgacc cacgcgtacg ctttgtcgag ggagaggatt 60
cttcctgttc tcatgtttgt ggtgtggttt cctgcaagtt tggatggaa acaaccagca 120
acaactactc aaagaatttc aagttatcac tggataacta caaatggat atctttgaaa 180
atgaaacgtc attcttctcc aaaccaccac accgtaaggt ttcctctccg catgatgaac 240
tcggagaaca agacgcgacc ccgttacttg caatagttgc ctttgattcc tatcgacgaa 300
atatactcga aaagttttcg ttggaatcga attggttgct atgccttgta caacggtgac 360
caagcacttt gttatgtagg ttacaccaa aacttgcaaa gaaagattgc ctttcacgcc 420
aagttgcaac cagacaattg caaatttttc 450

<210> 5202

<211> 393

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-D4

<400> 5202

atccccgggc gaccacgcg tcagggcctg ccaaatagta gagaagaaat cgatcaaagt 60
gaaagcgagt aaaagatgag gtatagagaa tggcggctct aacagtaagg atccaaaggt 120
agcgaagtaa atacacctct gaaacgcgtc cagtacgaaa ggacaaacga gtgtaacact 180
gtcaagtcgt ccaacgcagc gaaacagcaa taactgtgac aatgcagtaa actagcagta 240
cgaccgagag acccagaact cctgactaga tacgtttagg gacgacagac aatcacgaac 300
tagatgacgt ggggtaagag atcaaagacc actgcatgac gataaggact ctaactgagt 360
aaggaaaata agcttaagct agtttgccg ggg 393

<210> 5203

<211> 368

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-E7

<400> 5203

aattccccgc tcgaccacg acgtcagccc acgcgtccgg aatcacacat catgaccaac 60

agcaacgtcg cctttgtaac cctcttgtct ccaaacactc ctagaaataa gcttttgta 120
 gggaaaagac aacattcatg taaacatccg agtcacaata gttatacaaa gtatcaagat 180
 gctgctttca agtgcttccc actgcaagca aaggaagatg gccaaaaggg aggtggaaag 240
 ttcaatcctt ttgcggcact tggaaatgtt gggaacttta tggacgccgt gaagaaagca 300
 caggagtttt caaaggaagc tggaaagatg caggaagagt tatcaaagac agagctgaaa 360
 gctttcttc 368

<210> 5204
 <211> 442
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-058-Q1-E1-E8

<400> 5204

aattcccggc tgcaccacg acgtccggtg tttttgggaa gagagacaac ggaacaccca 60
 agtcgtactt gaagcttaca cacacaatga cttcacacta tcatcagata tgggaaacgt 120
 tggtagttgc caaccaacag ttgaaacaat gggtgcataa aaaccaacct ttaccaaata 180
 ccaccactac tactactacc caagacacgc cacaccaaac gagtcaaaat agttcacaag 240
 tagagttgga aatggaaatt gtcaaagaat tggaacaatc catgtcggaa ataggttctg 300
 tcgatagttt gctanggaaa gaactggata caagtcgtct ggatgacttg tcacaacaac 360
 gacaacaact gttggaggat gcagtggaat gtgaagatga ctatgtattg cttcatcgag 420
 atacgcacgc tcacgtatgt aa 442

<210> 5205
 <211> 362
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-F5

<400> 5205

aatgcccggg ctcgaccac gacgtcacgg gaaaaagata cctcactactc cggtcatatg 60
 agagatgagc aacgacggcc aacatgagca acgtggtcgt ggtgggtgcat cgctgcatca 120

aagtgccaaa agcttacttg tatgcgaaga aaaagaacaa acatacaaac ttggactctt 180
 tccgacgttg gtttgcttgg cacttacacc atgaaactag tcaacaattg agcagacgtc 240
 attgggagtc agttgaacgg agatacttgg acacgttctt ttcccatagt ggactatatc 300
 cagacgtcgc gaccatcaag tgtgaacgat gataagtata tagactcgtc gacgtttcat 360
 tc 362

<210> 5206
 <211> 441
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-G10

<400> 5206

aattcccggc tcgaccacg acgtcagccc acgcgtccgc ccacgcgtcc gagcccacta 60
 tgagaatcct ctttttcttt tgtgaaaaga ggagatgtat ttgaaaaaag acaagaaata 120
 tctgcagcaa gaaaagagca aatttcctgg aatggaatat catggagggt gagaatcccg 180
 tttatctctt ttctttgtat tcaagctgcg ttacgatatt tcttggttg gagtcggggt 240
 gtttggtagt acagccttaa ttttgtgggt gttataaatc atccaaggct aaatacgtaa 300
 agagaggaaa gaggtgtatg atgcaggcaa agaagtgacg cagtagatca gagagtaaca 360
 catgcaagta ggtaaagcga acgggtgagt aaagagggtg gaaagagtgg aagaacatga 420
 aagcacagaa gaatgtaaga a 441

<210> 5207
 <211> 439
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-058-Q1-E1-G11

<400> 5207

aatgcccggc tcgaccacg cgtaagagct cctggaggtc atttaggtag attctgtatt 60
 tggacaaagt cagcttttca gaaattggac gaaatatttg gaacttttac acaaccttcg 120
 aaacaaaaga gcgattatac gcttccaaag tccattttga ccaattgtga tattagccgt 180
 ataatcaact ctgatgaagt acagtctggt ttgcgaccta agataataag aagacgcata 240

tctactcgaa agaagaatcc actgaagaat aagaaggaaa tgttcagact caatccttat 300
 āgcaagggttc ttctgaaaga agcacgggag gctacgagtc aaccttcgca aaagagaaaag 360
 aagagattgc ttcgaaaaaa gaataagcaa gtgaagcaga ttggtcgaga gtattacaag 420
 aacatagtcg cgtaataaaa 439

<210> 5208
 <211> 340
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-059-Q1-E1-A3
 <400> 5208

cgcgtcaggt aaaaaaagat atatcggcaa ttcagctggt tgtgactaca agttatagga 60
 atgaagtttc caatcacttt acggagaagc agaactgggt aatgaatata agagtctagg 120
 atgacacgcg ttttgacaag acaggacctt catctggggc atgtgaggac tcgaatagtt 180
 ccaaatcggc tacagaaagt cgccactatt tggccaaacc gtcaacttgt agtttgcgct 240
 gttgttaacc tgaaatccct cttgggtcaa cccgtttttt aacaaatcca caaggtatac 300
 tccgataatg aaagcgtttt gattaacttg ggtcctctcg 340

<210> 5209
 <211> 223
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-059-Q1-E1-A8
 <400> 5209

ggcagatggt gcgcaagaag ttggaattac cgctatgcc aacttttagtt gttatagaac 60
 aggaaagaaa gtggaagaac tcgtgggtgc ttccaaggac cggttaaaac atatgattga 120
 gaagaacgct tagtgtgttt gtgtgttttg aagcatttgt tggagtaaag aatcatattt 180
 ttgttttcaa gtaaagatca tgtaagttct gtttgataat tac 223

<210> 5210
 <211> 433
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-B10

<400> 5210

cgggccgacc cacgcgtcaa gtgatgctat gactatgccca ttttgctttg tatttgatac 60
gactttttaag ttttcaaaaa ttccttatcg aaggtcttct accgacctat gtaaaccctaa 120
ggtttgactg gtttctctta ttgtacaacc taaaatttag tttagctatt tcagcacctg 180
tcgtctctat tgaaacacaa taccgaagcg gtcttcttca aggagaccga aaagacaaaag 240
tctacagaac ctgttaatgt taccagcgct cccaactcaa actcaaagtc ggtcacatct 300
gacggacagt tgaataagtc tgcttctaata acatctccac gaaccaatat atctctggac 360
tctgcaaagt ttaaagagta ctctcgaag ttcctcaacg atatttcttt gcgacccggg 420
ttctatggtc aac 433

<210> 5211

<211> 441

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-059-Q1-E1-B4

<400> 5211

ccggtcagga aatcncggct cgaccacgcg tcagtgaact ccatgtcaag ttcgccaacc 60
tcaccattgt tgggaaaaga acgaggagct tcttggaata tgaggacgca aggttctaata 120
gtcaccggaa cctcgaccga tagcagggtta actttagaaa gtccaagaaa tatttccagg 180
gcacaccatc ataggcgctt aagtagtcaa gctgtaagac tacttcgtca ggaaagcacc 240
cgggttcgca ataatgtggt ggatcgtttt cagcgagatt tactgccagc agggagactt 300
ctaaccgttc ttttagttac gagcgagtta acagcggagt tattggtact tttatttagc 360
tggaagcaaa cctgtgatcg tcctttacac ttttgatat gtgttttaata ttttatacag 420
ctattttcac ttgttctgaa c 441

<210> 5212

<211> 403

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-B7

<400> 5212

aattcccggc tgcacccacg cgtacgcttc aattgagcga caaaagattt tagaccacat 60

ggaacgggtg aaaactcgct tgggaattggt ttttatagac ttcgatcata gtgtacctgt 120

tggggaaagg ctcaaagtgc ttcgaagact tgacgagata tctgttcgag ccaagcaata 180

ttttaaagga ttgcatctgc ttatatccga caaatacgaa atttctaact tgacgggacg 240

catttctatt ccttatttct ttgaatgcag agaactcgac aaatttctgt gttacaagta 300

atggttgatc ggttgtttgg agactccatc atgtgctata actttgcagg gttggaacat 360

gtgtatgttg aagtgaaaag tcgaagagtt cctcccatag ttg 403

<210> 5213

<211> 414

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-C6

<400> 5213

aattcccggc tgcacccaca cgtccgggaa gaagtcgcca actttggtgc caagtacgaa 60

cgattccttg gataacaact tgttggttga cttgggttaa atattagtat ttacaagaat 120

ggctagtgtt tccgggtcttc ctcgaagaat tataaaggag acggaaaagt tacttcagga 180

tccagttcct ggaattagtgc ctgttcctca cgaagacaat gctcgttatt tcaatgtgat 240

tatccagggc cctgattctt ccccttatga aggaggaaca ttcaagttgg agttatttct 300

tcccgaagac tatcccatgg ctccctccaa agttcgtttc ttgacaaaga tatatcatcc 360

gaatattgac cgcttgggaa gaatctgttt ggatatattg aaagataaat ggag 414

<210> 5214

<211> 402

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-C7

<400> 5214

aattcccggc tgcacccacg cgtacggaag aaagaaggaa gagaagcgga tgttaaaggg 60

aagaggaagt agaagatgtg tggaggtatt gaggaaggag atgagcataa ggaggagagg 120

agtgagtagg ataaggttga gggagaggat aaggagggga gaggagatag ggataagtta 180
 agagaagaga taaaggaaga gaagggataa gagaggagag aaggagagga agggaaagtaa 240
 aagagggagt aaggaatgta agtaaggaag aagaaggaag agggagtagg aaggagagag 300
 aaggaaagaa aggaagaagg agaagaaaga aggaagagaa gcggatgtta aagggaagag 360
 gaagtagaag atgtgtggag gtattgacga aggagatgag ca 402

<210> 5215
 <211> 434
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-C8

<400> 5215

gaattcccg ctcgaccac gcgtacgcat tccaccagg gagtaaaggc gcaagaaaga 60
 aaccaaagc aattgacggg aatcggaaaa aggggtggat cacgtaaatt aatccgatat 120
 aaaccgagaa ccttacctct ccaagaagggt gttgcacggc tgtcgaaaga acgtgctgtg 180
 aagtgagaga acgtacgaga aagccaagtg aggaaaagaa ggcaagtaga gggcggtccg 240
 agaaaggaga gggcgtaaga cgtgatacag agtaggaaga aaagagaaga gagctagaaa 300
 ggaggtaaaa gaagagtaaa aggactagaa gaggtacgga attcacgagg aaggagcgtg 360
 aaggaaggag gaatccaag taatcgagga agaaaaagct tcggtgaaag cgtgaacgga 420
 ttttgtacac actg 434

<210> 5216
 <211> 273
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-D10

<400> 5216

ttttaaggca acttgtatac gactttattht aggtacatat ttttgaaata aaagcaccgc 60
 taattttcat gttgacaagc gagtgacgaa agacaaagggt gtctagctcc gttgcaacac 120
 tgttgatagt actatatata tacatgtgtg tgtgtgtgtg tgtggcggtg gtgtcgttca 180
 ccaaaagaat ccagaagatc attcataaac agtggaataa cttgtaatgg gtgatggata 240

tgtttttcta gtctttggaa ataaatgaca tgc

273

<210> 5217

<211> 420

<212> DNA

<213> *Cyanidium caldarium*

<223> Clone ID: LIB190-059-Q1-E1-D6

<400> 5217

gaattcccggtctcgaccacacggtacggctgcattcgaggctattcttccgtacatatct 60

tttgaggaagcgcagtcctcttcgtgatataacgaaccagcaccttctttgccttg 120

agtgcagtgtgcaagttgtcaaaaatgtacaagaccaatggcaccacaagataccgat 180

tcattacagagtataaagccaggttgctattctagtcattctagtgtaggaaaccgccaga 240

aacagttgcaagttgacaagagaccaagagccgtgggtgacagatttttccgtatcgct 300

tcgagcagctcagagattcccttaggttcacttccacatcgtctctaggctcttcagct 360

agtggagcagtggaacctttggctccggtagtgcttgggtttctctcttctctattgaat 420

<210> 5218

<211> 357

<212> DNA

<213> *Cyanidium caldarium*

<223> Clone ID: LIB190-059-Q1-E1-D7

<400> 5218

agcccacgcgtccgggtggcgcattcgacgacgccttcga gctggagcagcgttgagtaa 60

tttctgaaacacaaatatgctgccaagtggaaaaagaagagaacacgacgcttgaagcg 120

caagagaagaagatgagacagcgttccaa gtaacggaagaattcctcggacgtctgagt 180

tgaatagagttcctaaaacgtggaaaaactctttttgcaa ctctggcgca gtgagtatac 240

cctgctacggaaggttggaagtgtttccgaggattgttcgcaagttatgataaaaggttc 300

ttgtgggttttgttttcaaaaagaaagtacatacaaaaaaggaacaagtga aaaattg 357

<210> 5219

<211> 372

<212> DNA

<213> *Cyanidium caldarium*

<223> Clone ID: LIB190-059-Q1-E1-E12

<400> 5219

cgggccgacc cacgcgtcag ccaacgcgtc cggagaatgg acgataagga actaggcaaa 60
aggatatggg atctgcggtg gaacatatga aagaagcagc accgactgtt tagcaaaaac 120
acagcactct gcagaaaaga gaaaatgtaa agtatagagt gtgcggcctg ccaaatagta 180
gagaagaaat cgatgaaagt gaaagcgagt aaaagatgag gtatagagaa tggcggtcct 240
aacagtaagg atccaaagggt agcgaagtaa atagacgttt gaaaggcgtc cagtatgaaa 300
ggagaaacga gtgtagcact gtctagtcgt ccaactcagc gaaacagcaa taactgtgaa 360
aatgcagtaa ac 372

<210> 5220

<211> 75

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-E4

<400> 5220

ccccaaaagg atcaaacctt acgtaccctt gaatgcaacg tcaaaacctt tcaaaagtgt 60
caccaaaatt caatt 75

<210> 5221

<211> 430

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-E7

<400> 5221

gaattcccggt ctcgaccac acgtcagaag aaaaaagagt tgtctgagga ccaaacagag 60
tgacaagaag agatggcaag gagaatattg ggtgcttata tgggagatgc cacagtggca 120
actctgttca gtatcaaaat gttgttctat cttactatca tgggtttctc cataactatc 180
ttggctctca tgggaaagaa ctoggatggt atttggatac atagtgtgcc acctgcagaa 240
caatattgtg catacaagtc ttcattggag gtgaaccacc atggaattgc ttcctattgc 300
aagtatatcg ttgccgtagc tgctattggg ttggttatct cgtttttcca gttttgctac 360

ggtctgttgg gtatcttttt caagtggcaa caaaagttgt ggtatattga agatgctttc 420
aatctatttt 430

<210> 5222
<211> 423
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-E8

<400> 5222

ccggctcgac ccaagcgtag ggggttttgt ttgggataaa ctgccaaaaa agaattacac 60
aagacgtaaa gaatggacaa ggcaacaac tataaaccca agtttctctc tatcaaagaa 120
agaaacagaa tagcgacgga ccaaccagaa atacgcagga ttccggtacc ggccaataga 180
tatactccgt taaaacagtc ttggttacia atatatgagc ctttggtaaa gcacctgaaa 240
ttgcaagtac gaatgaattt aaagtcaaga atggttgagc tcaagaatgg tcctgaaaca 300
gatgactatg gcgctctcca gaaaggtgaa gagtttgtag gagcgcttct cgtagggttt 360
caagtttctg atgccttggc tttgattcgg ttggacgact tgtttgtgga cagttttgac 420
att 423

<210> 5223
<211> 375
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-F10

<400> 5223

cgggccgacc cacgcgtcag gaaagaagag agtghtaaggc ggcgtcataa tagaaatccg 60
aaaggagtag aagaaaagag agagaagaaa gaaaagaaga gaaaagccgt actgaagacc 120
gacacaghta ctcgaggaga aaggagaccc aaattaaggt gagagaatgg acgataagga 180
actaggcaaa aggatattgt atctgctgta gaacatatga aagaagcagc accgactgtt 240
tagcaaaaac acagcactct gcagaaaaga gaaaatgtaa agtatagagt gtgcggcctg 300
ccaaatagta gagaagaaat cgatgaaagt gaaagcgagt aaaagatgag gtatagagaa 360
tggcggctct aactg 375

<210> 5224
 <211> 425
 <212> DNA
 <213> *Cyanidium caldarium*
 <223> unsure at all n locations
 <223> Clone ID: LIB190-059-Q1-E1-F11
 <400> 5224

acccacgcgt caggaaaagg aaagaaagcg aaaaaatagc gaataaatct agagtagaaa 60
 gctgtaagaa gaagagtagg atcggcagag aacgtacgag aaagccaagt gaggaaaaga 120
 aggcaagtag agggcggccc gagaaaggag agggcgtaag acgtgataca gagtaggaag 180
 aaaagagaag agagctagaa aggaggtaaa agaagagtaa aaggactaga agaggtacgg 240
 aattcacgag gaaggagcgt gaaggaagga ggaatcccaa gtaatcgagg aagaaaaagc 300
 ttcggtgaaa gcgtgaacgg attttgtaca cactgcccgt caagttctgg aaatgtgcca 360
 aggattaagc aagaaaatta gannagagta ggaaaagaag aaaggaagtg aagacgtaag 420
 acgtg 425

<210> 5225
 <211> 352
 <212> DNA
 <213> *Cyanidium caldarium*
 <223> Clone ID: LIB190-059-Q1-E1-F12
 <400> 5225

gattaaataa acttttgaag ggcgtccatt atgaaaggag aaacgagtgt agcactgtct 60
 agtcgtccaa ctcagcgaag cagcaataac tgtgaaaatg cagtaaaacta gcagtaggac 120
 ggaaagaccc cataattctt gactagatag gtttagggag gagagagaat catgaagtag 180
 aggaggtggg gtaagagatg aaagaccact gcatgaggat aaggaatcta actgagtaag 240
 gaaaataagc ttaagctagt ttggctgggg aagtaaagcc taagaaagag taaattaggc 300
 aagcaaaggc atgagagaag tataatagca gaagcatgct tgaagaaaaa ga 352

<210> 5226
 <211> 181
 <212> DNA

<213> Cyanidium caldarium
 <223> Clone ID: LIB190-059-Q1-E1-F4
 <400> 5226
 cccttgggaa aaaataaaaa aacaaaaaaa aaaaacaaaa aaaaaaaaaa aaaataataa 60
 aaagaaaaaa aaaagaacgg aaacacagcc aactaggtct tcccgggtggg aggatcaaag 120
 cgttggttcc cactgatccc attccatgac cctcctataa gacaccggat ttcctattca 180
 a 181

<210> 5227
 <211> 430
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-059-Q1-E1-F6
 <400> 5227
 aattcccggc tcgaccacg cgtacgggtc gtgcagcttg tgcaggtttt ggtggattgg 60
 aacatgtgta tactcccacg ttgattcaag gcgacttgag tagagaaaag gtcatatctg 120
 tttcttgtgg acgcagtcac acagcagctg tcaccgagag tggacaagta tggacttggg 180
 gatatggata cgaaggtgaa cttggacacg gagaaaagtc aagtcagttg caaccgaaac 240
 gagtagagtc tttgaacaaa gtggtcgatg ttgcttgtgg aagagacttt acaatttttg 300
 tgtgtgagga cggtttatat tcctgtggag ctgatgacta tggacaactc ggtttaggtc 360
 ggtcgcagtg agagaggttt gtacaaactc caagatcact ttcaggaact ggcctatcgg 420
 aaattgttgc 430

<210> 5228
 <211> 338
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-059-Q1-E1-G4
 <400> 5228
 cgcgtaagat aaaaaaaaaa aaaaaaaaga aaaaaaaaaa taaaaaaaaa gggcagacgc 60
 actaaatgat aaaaagctta cttacgcgtg taagagaaag tcgtaggtct tctatagggt 120

tgggtaaggt catttcactg gacatagttt tagaaattct tcattgggaa aaccttgacag 180
 ttacttaact tagtcgcctt gtggcagatc aacttttcgc cagcaggagt caaatctaata 240
 tgggtcttcat ctgtcgacct tcactagagt tgagccactt gcattggaaa tgggattcgc 300
 attgtagcca ttcagtatgc tcggcgggtg atggtgat 338

<210> 5229
 <211> 162
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-059-Q1-E1-G5
 <400> 5229

cgaccacga cgtcaggat gaaattgctc attcaaaaaa aaaaaaaaaa aaaaaaaaaa 60
 aaaaaaaaaa aaaaaaagga agacgaacaa aaggataaaa aacttaata aacttgcaag 120
 cgaaagtcac aactcttcta aagtgatcat ctaaattcaa tt 162

<210> 5230
 <211> 437
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-059-Q1-E1-H5
 <400> 5230

aattcccgc tcgaccacg acgtcagccc acgcgtccgc ccacgcgtcc gcccacgcgt 60
 ccgcccacgc gtccgcccac attaggtga gagaatggac gataaggaac taggcaaaag 120
 gatatggtat ctgcggtaga acatatgaaa gaagcagcac cgactgttta gcaaaaacac 180
 agcactctgc agaaaagaga aaatgtaaag tatagagtgt gcggcctgcc aaatagtaga 240
 gaagaaatcg atgaaagtga aagcgagtaa aagatgaggt atagagaatg gcggtcctaa 300
 ctgtaaggat ccaaaggtag cgaagtaaag agacgtttga aaggcgtcca gtatgaaagg 360
 agaaacgagt gtagcactgt ctagtcgtcc aactcagcga aacagcaata actgtgaaaa 420
 tgcagtaaac tagcagt 437

<210> 5231
 <211> 431
 <212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-059-Q1-E1-H6

<400> 5231

aattcccggc tcgaccacg cgtacgcgga cgcgtgggcg gacgcgtggg cggacgcgtg 60
ggtggaatca aacgctgacc aaagagcgtt ggttgattat tgggtgcagct attttaggag 120
gtttcgtttc cagaacttta tttgcaactc atgacaattc acagccacgc caaggagaca 180
aggcgccttc aaacaggcga aaacaaagca accgtagaag caaaactact ggaaatgcta 240
cagagcaaaa gagtcctttt tgggtggccat ttaagtttta atattgttat tctagttttg 300
tcgacgaagt tccgtaatta cggaggcaag agcgtanggg tcgaagcctt gttctaacia 360
ctctatcgcc acttgtacag tttctctgtc tagtcacgtt tccaaaagtc tcgctatttc 420
gtaggaaact a 431

<210> 5232

<211> 352

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-059-Q1-E1-H7

<400> 5232

agggtgtgtg catagatatt ctctcccatg gcaaagtatt taccggatat gaagagactt 60
atggatagaa aggtttctgt tcagttaaata ggaaaccgca aggtggaagg cgttctccgt 120
ggttatgacc agtttatgaa cattgtgttg gaagattgtg tggaaaaact aggacctatg 180
aatgataagg aaattggcac agttgttgta cgagggaata gcgttttcat cttgaagtc 240
cttgaacgag ccacgtgacc tcgtctctct ctctctctct cttgctttct cggttagaaa 300
accaaaaata atacatctac actgttttat tagaaaacia atnnnanaat aa 352

<210> 5233

<211> 436

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-059-Q1-E1-H8

<400> 5233

aattccccggc tcgaccacaca cgtccgcccc cgcggtccgct caaaacagac aaaagtttgc 60
ggacctactt agatactatt cgaccaagtc accagatgaa atgatttcat tgaaggagta 120
cgtcagccga atgaaagaag gtcaagactc catctattat attacgggtg aaagcaaaca 180
agcggttgag aattcgccct tcttagaaaa gcttcgacgc aaaggatatg aagttctctt 240
catggtggag ccgattgatg agtactgcat ccaacaactc aaggaatacg atggaaagaa 300
gctggtttgc gctacaaagg aaggctctgaa attggacgaa acagaggaag agaagaaaga 360
gaaggaggaa caaaagaagt ctttcgaaca gttgtgcact gttattaagg aaattcttgg 420
agacaaagtg gagaag 436

<210> 5234

<211> 418

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-A12

<400> 5234

ttccccggctc gaccacgcg tacggaagga tgcccgtata tatgcatgtt gggccaacgt 60
agaactggaa ttgaacaata tggatagagc agttgaactt ttacaacagg cactgaagat 120
aaacaatttg gactcgtatc tatggctaca atatgcagtg gttgaacata gacgtggcaa 180
tgttccaagg gcgcgtgctc tgtttaagcg aggtgcagat atcaatccct ttgattgggt 240
tctgtgggag gaatggagtc atatggaagc gaaggaagga aacccaaaagg aagcagaaca 300
acttgcaaaa aagagtgtca aagcaaaatt acgaagtatg ggaaataatt tgtcaagata 360
cgatcgtgag cattcttttc aaccaagtta tgtgtcataa gaaaggcagc atgaagac 418

<210> 5235

<211> 431

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-A2

<400> 5235

tgacggtcag gaattaacgg gtcgacgcac gcgtcaggaa ttatggtgtg gttaggtggt 60

tacgcttaat gttgccatca atagtcataa caatgctctt ctaacccttt tggtttccaa 120
tcaatttgta gaagtaaagg gatcggtagg ttgtagtatt ttccttttat acgacagttt 180
atgtgggaat atttaggtat tttaaagcaat aagattggaa aatctatttc aaatatcatg 240
tgcggattcc gtggagcggg ttcaattgtg tgtttttctt tctatgacat gttttcagag 300
tcaagggaaa agcattatgc tatttatatg gctcatcatg tggtttgagg aaaccttgat 360
tgattggatt aagcatgcct ttgtgaccaa gtttaacggc atatcctaca aagtatatca 420
acagttttcc t 431

<210> 5236
<211> 360
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-060-Q1-E1-A5

<400> 5236
agaactttgg ctgcgtctgg tgcaacgtca atttactcgt tgcttcagag taaaacagac 60
tatactttta cagtgcgaag catagagctg gctaactctaa cagacgtata caacagcagt 120
gtattgggct ttacctttct tgcttccaat gacactgctt ggaaacaatc aagagccaat 180
gtcactgggtg cacttagtgc agcaaaacaa aacgtaacaa gagcaatagc gtttctagaa 240
cgcttgatag cagcaagcac agtgaataaa acgggtggagt ttagtaagct ctctagtggg 300
acgaacgagg ttgtttcgct ggcagggtta ccgcttaatt tcacganaaa ttctactgga 360

<210> 5237
<211> 393
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-060-Q1-E1-B1

<400> 5237
caggaattca cgggtcgacg cacgcgtccg cggacgagtg gggccgtggg aagacgcttc 60
gtttcctcca agggatcgat gtttctatcc tctttgtact gagtattgta tacagatatc 120
atagtgtgtg aaatacttgt gttccatgtc gtcctctatg aaatccaact tgtatgctct 180

actaccagac gacgcagaag atgccacgga aggagtcgtc agcagaacaa catcgacgag 240
tgttgaaaag cccaaagcat cttctgcttc ctctgtggcg tcctccacca aaacaaacaa 300
agtaaaaata ccgcatgtag acgctttgcc agtagcagaa gaagaggata caactttggc 360
ggaagaagag aanaggaaa acactctccg cac 393

<210> 5238
<211> 429
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-060-Q1-E1-B12
<400> 5238

accggttagg tattcccggc tcgaccacg cgtacgggat ttgtcgcccc gttgccgtcg 60
cctacttgtg cttgtgaagg taccagtgga tgtccgagtt gttatggcat ctctgtaaag 120
gccacaacgc attccaaata agaagaaaag gagtcacgct ttcaacagag aaaggaaatt 180
taaagggtgt cagtactttt aaatattcgg gtcttgctca accgaaggcc gtcgacattg 240
ctccagctac agaaactttt ggtattttgt actcgaagaa acgtaccaag aaagatgctg 300
ctcgaaaacc ttcgagggaa tttcatactg atgtcgtgaa aaaaggcttc ctcggtctg 360
caaaagtcgt ttcgaaggat cttgcaaact atcgaccgga cttgaagaag cttgccattg 420
caagaatat 429

<210> 5239
<211> 422
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-060-Q1-E1-C10
<400> 5239

tcccgggtgg cccacgcgt cagcagacgc gtggggtatg atgcaggcaa agaagtgacg 60
cagtagatca gagagtaaca cagcagcggg aaaacgtgtg tagcaagcgt agagcagaag 120
aactgggtgt aaaggctcag tagtagagta agtgtaaaag ggaaaggaaa ggagagaaag 180
aggaaagggg tgaaatgcag agatctctag agaaaggcaa gaaagaaaag aaaggaagac 240
acagtaaagtg aggcgagaaa gcataggaag tgaaacggat taagaacccg tgtagtctat 300

gcagtaaaag aaagaatgag taagaaaaaa gggagtcatt ccaccagggg agtaaaggcg 360
 caagaaagaa acccaaagca attgacggga atcggaaaaa ggggtggatc acgtaaatta 420
 at 422

<210> 5240
 <211> 388
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-060-Q1-E1-C2
 <400> 5240

cggtcaggaa ttaccgggtc gagccacgcg tccgcccacg cgtccgcccc cgcgcccgcc 60
 cacgcgtccg gaaccctgtg agtctatgca gtaaaagaaa gaatgagtaa gaaaaaaggg 120
 agtcattcca ccaggggagt aaaggcgcaa gaaagaaacc caaagcaatt gacgggaatc 180
 ggaaaaaggg gtggatcacg taaattaatc cgattttaac cgagaacctt acctctccaa 240
 gaaggtgttg cacggctgtc gaaagaacgt gctgtgaagt gagagaacgt acgagaaagc 300
 caagtgagga aaagaaggca agtagagggc ggcccagaaa aggagagggc gtaagacgtg 360
 atacagagta ggaagaaaag agaagaga 388

<210> 5241
 <211> 362
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-060-Q1-E1-C3
 <400> 5241

cggttcgagc cacgcgtcag cggacacgtg ggttgtgacg aggctgttcg ctggaatctg 60
 tggccccctg tegtactctt gaacactttg tttggctctc ttttgtagt aactgttttg 120
 ttttctttta tttgaagagc ttgggagtat aactggagtg gtttgtgggg ctacttatgt 180
 actgagcccg ttgggttttc tgttctcgaa atttgcgcc atgcgggagt tgctcaacga 240
 cagaagagtt acatgggaga atacggacgg tgatatagat gtatttgtgg agactgggta 300
 tgtgacagag gaagaagagg ctgacgttgt tgcgtcngan cgtggggtag agagtgatgt 360
 tg 362

<210> 5242
 <211> 426
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-C4

<400> 5242

tgacggtcag gaataacggg tcgacgcacg cgtcagctaa aaaaagcttt gttcgcaagt 60
 ctcgttgctt gaacagttct cctcctcctc cttcttgttg ttgtcaaac aagttgtcca 120
 ataaaacgtg ttgtgataga cgcaagtttt tgaatgattt ggtatggaca acgaaaagtg 180
 tggtggtaac aagtgcgagt tattttctcc tgggtaatac tactgcttgg gcagcgaaag 240
 aagaaaaaca aagtgtccct gcagcagttg ccaatcaagt ggagacatac aaagacttgg 300
 taaaaggtta taaaatattg cggccgatag gttggaatca atttgctgga caacgaaacc 360
 aatatgatat caagtggcaa gatatcattc agcctttggg aatagtgatg attgctactg 420
 tggatg 426

<210> 5243
 <211> 256
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-C5

<400> 5243

agcccacgag tccgcccacg cgcccgagac gcccaaaca ggacgtccta cttgcggacc 60
 tgaggaaggt gtcggagtct tctccaacgc ttcggacttt ggtacgagca aaataaagtg 120
 tgtggaatat tggggtcgtc caggtecat gttccaagag tagaacgtgc gttttgtgtt 180
 tgttttgtgg gtgaacaaca tttgttcttg tctgaaataa aataacagct atgctacaaa 240
 aaaaaaaaaag aagaag 256

<210> 5244
 <211> 427
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-C9

<400> 5244

cggtcaggca ttcccgggtg ccccccacgcg tccgtgaaag agcagcatga gggacctatt 60
tatacagttg attggtctca tcaaagtggc cttatcgta ctggaggtgg tgacgacgca 120
atacaaattct atcaagaaca gccttttggg aagactgaaa cacttgaaag cacaaaagaa 180
caattgcttc cgtctcgaga tatagcgtgt agtgattcag aagattccag ccgttccgaa 240
cctttttacct tggtagctac taccctcaac gcacatgaag gtgagggtta ttgtgtgaaa 300
tggaatccac aggatgggta cgtcttcgct tcttgtggcg atgacgggtg aataaatatt 360
tggcagataa gtataaacta attctgactt tcggacaaga cgcgttggtc actagccgtt 420
gtcgttg 427

<210> 5245

<211> 386

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-060-Q1-E1-D1

<400> 5245

tcaggaatta acgggtcgag gcacgcgtcc ggaatcaggg taagaggtag aggagcaaga 60
agagaagaga gaatgctggg tggagtagcg aaacaagaga agggaagtaa aaggtaagaa 120
agaggaaagg tttacgagag aaggaagtag aaagaagaga gtgtaaggcg gcgtcataat 180
agaaatccga aaggagtaga agaaaagaga gagaagaaag aaaagaagag aaaagccgta 240
ctgaagaccg acacaggtac tcgaggagaa aggagacca aattaagggtg agagaatgga 300
cgataaggaa ctaggcaaaa ggatatggta tctgcggtag aacatatgaa agaagcagca 360
ccgactgttt agcanaaaca cagcac 386

<210> 5246

<211> 416

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-D10

<400> 5246

ttccccgggtc gccccacgcg tcagaaggaa tcgtccgagg aaacaacgca gcagacacaa 60
gagatttctt tcgagagtat attccaagaa cctgaaaatt ttagagaaca agttcctatt 120
ttcagataca cgagctattc tagtccaaac cgagggtttc gtttccacaa catcagactg 180
gttgaaaaac atccactatg gggtcactat ctttggaatg gagcagtttt acttgcagac 240
attctttcag gagaagctcc cattcctact catatacaag tagttggtga tcgaatatta 300
gaacttgag ctggagcagc agtgcctagt atgattgcag cgttgcgtgg agcaagttat 360
gtgttgatca ccgattatcc tgacaaggaa ctcgtggaaa acataaagta taatat 416

<210> 5247
<211> 362
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-060-Q1-E1-D3

<400> 5247
gggtcgagnc acgcgtcagt accatttcat catgaaatgg cacagtctcc aaaatatcca 60
aagaaattat tcttttattg tgatgtggaa cctccacgtg gaggggaaac gccaatttta 120
ttatctcatc tcgtatatca agaaatgaag caacgatgtc ccgactttgt tgcagcattg 180
gaacaaaagg gcatcaaata tacgagaatt atgccagaag aggatgatcc ttccactccc 240
attggaagag gatggcgatc gacgtatgcg gtgaacagtc gtgaagagtt ggagaagcgt 300
tgtcatgaac ttggttccga attggagtggt cttgaggatg gttgtttaa ggttactaca 360
at 362

<210> 5248
<211> 340
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-D5

<400> 5248
agattggaaa gaaaattgca ggaactggaa tccaaaagta taggtagcag cagctccgag 60
aatatcatcg tcattactgg aagtggacat cataccaaag gaaagaaaac gccagctcgt 120
ttgtatcccc cagtcgaaca gttcttgttg tcccatcggt actcgttcca agtagtgaaa 180

gataccaaca agtatgccgg agcatttctg gtccgtcttg gcggctagtt ttatttgata 240
tatctctcca aaaacttgcy atgaaactcg ttgcgaacgg tatcgttgat aaacccttgt 300
tcattttcaa aagaaaaaaa agaattgaa gaagaaggaa 340

<210> 5249
<211> 428
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-060-Q1-E1-E3
<400> 5249

cacgcgtgca gtgcggtcag gaattaccgg gtcgagccac gcgtcagccc aagcgtccgc 60
ggacgcgtgg gtacgacagc aattttcagt ttatcaaagc tcgagtagag gatgggtcta 120
ttggagaatt gcgcttgttt catattcatt ccagagatcc ttgacctcct ccagccgaat 180
atttggccac tagtggtgga atatttctag atatgacaag tcatgacttt gatatggcaa 240
ggtttatcag tgggagtga attgaacaag tgtttgtgag tggaagagca tttgatgagg 300
aagcgaaaca agcaaacgat ttggatactg tgatgattca cttacgaatg agaaatggaa 360
gtatgggcac tattgataat agtcgtcggt gtagttatgg atatgatcaa cgaatagaag 420
tttttggg 428

<210> 5250
<211> 415
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-060-Q1-E1-E4
<400> 5250

ggtcaggaat aacgggtcga gccacgcgtc agggttccac agacatgtcg aacgacaatc 60
agtctgataa gagcactttg aaagaagcgg aggagaagct gcagagtga gttcatactg 120
gaacagagaa agtttctcag gtgttgagcg acgtcaagga aactgtgacg gagaaataca 180
aggaatggac agcaccaaaa agtagccaag aagaagcaaa agaaaaagca caagaagcga 240
aagaagaggc taataaagct tttaatgcta tgaaagaaag tgcgagtgcc gcttcagagg 300
ctgcatcaga gaaagcagaa aaaattaagc aggagttgaa ggagtgaaga tacacagtag 360

ttttctocta tagtggttctt agtagtatatt gtagtgatat ttgtctcgtg atgaa 415

<210> 5251
<211> 309
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-F1

<400> 5251

cggtcaggaa ttaccggggtc gagccacgcg tcagcccaca cgtccgcccc cgcggtccgca 60
cgggcaatgt ctcccaaagt aggtttttacc gatgggcgac tattgctaata tgaaaactac 120
tccaattcac gcgcgttcac ctctcgtagg tgaccgtgca attttttgaaa ctttctaaaa 180
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240
aaaaaaaaa aaaaaagaaa aaaaaaaaca aaaaaaaaac ggagaaaaaac aaagggggggc 300
gccacaaaa 309

<210> 5252
<211> 212
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-F12

<400> 5252

cccacgcgta cgaactgatt gacgatataa aaggaagaac ggaccgagtt ttacaagtcg 60
atattgctgg agtattcttc ccggccggtt ttcaaggatt ttgaagaatc ctggcctttt 120
tgcggtcaat atgttaattc caatagagca attgaggaac ggaagtacct aatttttcaa 180
tgcggtagta attccttggc tcgtaactaa tg 212

<210> 5253
<211> 425
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-F3

<400> 5253

ggtcaggaat aacgggtcga cgcacgcgtc aggaaatgct gctgctgtct gacgagaaga 60

atggcagttg tacgataact tgcgtgtttc tcgaaagtcg atttgtatta tggagcgtta 120
 ttcaaaagaa cagtgtttgt gtgtccacta ctttaaataa tagaaactgg agaatgcaaa 180
 ataacaacga aaataactca cctaaaagat atccttttga agacgattgg agagaaaagt 240
 tgaatagaaa gatgaaacag gaaaaaatag ctcgacaagt tatgtctcaa gtgcaagagt 300
 tgagatggaa agaaagtttg gaggggtaca ttgagaacga agtggaacat attcgaaacc 360
 acgtcagtaa taattttcgt tatcatcagc cacaaattat gaacaaaggt gttgaaactg 420
 caaaa 425

<210> 5254
 <211> 398
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-060-Q1-E1-G10

<400> 5254
 acgcgtacgc acacgcgtcc ggattgttgg gccttctggt ggtgatgcc tggattgagc 60
 tacgtagtgg caactccgct gtcttgaaag acataactgc aagtattgaa aagcctgaca 120
 taggatggat aactaggacg aatctcagta cttgtctgaa ttctgcagaa ggaaatgtta 180
 cggttgactt gtcgcggcag tgtancttga aggatatatt ttccttgaag cttctcgaca 240
 ataactttaaa tttggcgtgt tttaatgatg cttgttttt agttttacca ggcttaccct 300
 ttgttattac tggaaatcgt aaattctgta gacgctcgga cttgaatgaa acggaaacat 360
 tggagtcctg cttttcgttt atgaagatat gccccacg 398

<210> 5255
 <211> 323
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-060-Q1-E1-G11

<400> 5255
 tccggctcga cccacgcgta cggttttatt agtagcaaaa gtagcttttg cagtacaaga 60
 taatgtcaat cccttgaatt tgttgaacca aggtttccgc tcccaggatt tggctttggc 120

cacaatatta cacctgccat gtacatttgt gggataaaac ccaaattggcc cggtggtgta 180
caagataaac ccctgtctcc gtaacctgct gggatacaagt tgcgactttt tttgacgata 240
ccctgtacaa ttttgggttt taatttaaag aacaacaacc aacctcgta cattttatgg 300
gtaattggtt tgaatatatt ata 323

<210> 5256
<211> 418
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-060-Q1-E1-G12
<400> 5256

cggttaggaa attccggctc gacccacgcg tacgcagacg cgtgggtcgt ttgacgttgg 60
tgcctcatta agccatcggt gaactacatc ttttatctct tgtagcacia acacaaatta 120
aagaacaatg cgtgagggtta tttctcgaga tattggtcaa gcagggtgttc aagtagcaaa 180
ctcttgctgg gaactttatt gtttagagca tgggtgtcaac gctgatggaa ccattgataa 240
aaagggaaac acagcaaacg aagaagcttt tggtagcttc tttaccaga caagctcggg 300
acgatatgtt cctcggttggt tatttgtcga ctggaacct tctgtcgtag atgaagtctg 360
taccggtgcc taccgccatc tctatcatcc agaacaactt atttcggcaa agaagatg 418

<210> 5257
<211> 373
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-060-Q1-E1-G2
<400> 5257

cgggtcgagc cagcggtccg gtgaaagcga gtaaaagatg aggtatagag aatggcggtc 60
ctaacagtaa ggatccaaag gtagcgaagt aaatagacgt ttgaaaggcg tccagtatga 120
aaggagaaac gagtgtagca ctgtcgagtc gtccaactca gcgaaacagc aataactgtg 180
aaaatgcagt aaactagcag taggacggaa agaccccata attcttgact agataggttt 240
agggaggaga gagaatcatg aagtagagga ggtggggtaa gagatgaaag accactgcat 300
gaggataagg aatctaactg agtaaggaaa ataagcttaa gctagtttgg ctggggaagt 360

aaagctaaga aag

373

<210> 5258
<211> 363
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-G3

<400> 5258

ggtcaggaat accgggtcga cgcacgcgtc cgggccatac ccccggtgaa tcgctatagg 60
aaagtgagca atacagtctt caaggcaaca gctttaacgt tgtcgactgc tgcagtaatt 120
ggaaacctat acatattcgc aaacttgctc agcatagttt cctacagaag ttcaaagaag 180
gagctgacgg aagccagtaa tgctcaggaa aactgagaaa cacaagttgt cttcacgtct 240
ggaggatgga aatattatct gaagctaggc tgggggtctg ttcctttag aagctctgggt 300
gttttgagaa cttgcaattg ttttgttctt tgtagtaaag aaattgtctt cttttttctt 360
aag 363

<210> 5259
<211> 362
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-060-Q1-E1-G4

<400> 5259

cgggtcgacg cacgcgtccg aattcatcac gggaaaacat ttcttctgtg cgtcgaagct 60
atcatgaagt aagctttttc gattgggcag cagatgacga aagtcatcaa acctcggaag 120
caacctacca gttggctttt gaaccaatt caggaatgcc taagcgctct ccagttacga 180
ttgacaagac tagaccgaaa gatgatacta agagtttggt gaaaagacaa gatgatgtat 240
ccgaggagcg aagtatggaa caaggaggag caggtaagct acgtgggtcg agaaatcggt 300
attcatcgag atacggctct acagaaggag agcgacatag accaaacggt agacagccat 360
tt 362

<210> 5260
<211> 326
<212> DNA

<213> Cyanidium caldarium
 <223> Clone ID: LIB190-060-Q1-E1-G6
 <400> 5260
 agcccacgcg tccgcccacg cgtccgccc cgcgtccggt atgaagtttg caagacgttc 60
 cgtaaccgat gcggatgtgc gtcgctatga gatgtacgcg caaaacatcg aagctacgag 120
 aggattcggg ggtggattca agttttccga tacaccttcc tccaacaatc aaggtaacac 180
 cggtgacgag gatctctatt cgtaagagaa cggttcagga atctgtgctt tattgatgtg 240
 tggctttttg ttgaaataaa aatttgttta gtttaaaaaa aaataaatc aaaaaaaaaa 300
 aaaataaata aaatactaca acactt 326

<210> 5261
 <211> 427
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-060-Q1-E1-G9
 <400> 5261

ccggttagga attcccgggt cgaccacgc gtacgccac gcgtccgcg acgcgtgggc 60
 cagaatggac caacgacgaa atattagaaa gagcaaaaca agtacaaaaa cttggtatcg 120
 aaagaggctc ccaatatcgt tgtgtagcca gcggtgagtt tttaagaata ggactccttc 180
 aaaacccatt tcgtgcagat attatgcaga agaaaccttt gaaagaacag agaattgtcg 240
 aaattgggtg tggttttggt atcgatgtgc gttacttgat tcggcaactg ggtgtttcca 300
 aggatcatgt cgtagctatc gatgtagctc cagcctttat tgagttggga tacgaactat 360
 ttcaagacaa ggaagcagtg gaatcttggt tccatgtaaa gagtgttggg gatgaggatt 420
 tcgtgag 427

<210> 5262
 <211> 428
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-060-Q1-E1-H11
 <400> 5262

accggttagg tattcccggc tcgacccacg cgtacgaaga ctgctctgag ttgcctcttt 60
ctctctttcc ttatcgctgc cgcagttgca gccgacgtag tttcagagga gagatgggga 120
tatgctcagc aaaccaaca acagcaacag tgccaacaag tatgtaaaca gtatgcatac 180
tatcagagtc cagtctgcac ttccgtaacc acacagagcc catactggac ccaatgctcg 240
aagactgtgc aaacctttgt cccaagccag tgcagtactt ataccaatc tcctacatgg 300
acctattgca gcacctacac caccactagc gtaccatctc aatgcagcaa ggccgtgact 360
acttatactc aaacctgctg tgcttatgcc caacaaactt cctatgcagt cagtaccgag 420
caatatgt 428

<210> 5263
<211> 410
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-060-Q1-E1-H2
<400> 5263

gggttacggg tcgacgcacg cgtcagccca cacgtccggt tgggccttct ggtggtgatg 60
ccctggattg agctacgtag tggcaactcc gctgtcttga aagacataac tgcaagtatt 120
gaaaagcctg acataaaatg gataactagg acgaatctca gtacttgtct gaattctgca 180
gaaggaaatg ttacggttga cttgtcgcgg cagtgtagct tgaaggatat attttcattg 240
aagcttctcg acaataactt taagttggcg tgttttaatg atgccttggt ttttagtttta 300
ccaggcttat cctttgttat tactggtaat cgtatattct gtagacgctc ggacttgaat 360
gaaacggaag cattggagtc ctgcttttctg tttatgaaga tatgcccacg 410

<210> 5264
<211> 381
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-061-Q1-E1-A11
<400> 5264

cgaccacac gtacgaaata ttttatgccg ctagtcgaca gaagagtgtt gtgggagtgg 60
acgagtgcct attcaataac tatttattat tcgccttata aagggccttt ggaaaaatagc 120

gaacgggtat atattcacgt gggaaaagat ggttggaac atgttttggg aacatttttg 180
atgaacaagt gggatacttt ctgcgaatat caagtctcgg acgtgctcta ctgtactcaa 240
ctagactttg tatttaccga tggaaaccaa atatgggata acaaccaaaa tagagattgg 300
catattgtat ggagagagca aagagtcctc aagtatttcg actgctgttc aaaccatcca 360
tcgaacactt ttggcaatga g 381

<210> 5265
<211> 303
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-A12

<400> 5265

aattcccggc tcgaccacg cgtacgaagt ttggttgttt tcttggtagc agttgtacat . 60
tcaacatcat caaatgccaa agggaggaaa gaaagattct tcaaagaaag aagccacaag 120
taaacctgca gcagcagatg ctacaaagac gacagaaaag tctgggtcgg aagccaagtt 180
gaagggaact ggtgcaaaga aacaataaaa agttgactat gcatgttctt gttatgtttt 240
gtgagttctg tttgatagtt tccagctatt cttttggtag tgaataaaga gaaaattttt 300
tat 303

<210> 5266
<211> 455
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-A4

<400> 5266

gtaccggcta cgaattccca gctcgacca cgcgtacgga tttctacgtg ggtttgcgtc 60
tcaacatgtc tttttttgaa acgtatacag tcgaccctgc tttccaacag aaactcagta 120
acaagacaa gtaaggccaa ttgggacatg agagcacggt cgagtttacc gctgggaccc 180
tgaaaagga gaagaacctt aattgggttac ctactcgatt cctctcaaag aatgcggtcc 240
catggtgttg gatgccttat tcaaaataga gaatgaagt gactctactt ttgtatttag 300
aaggctcgtc cgagagggaa tttgtggaag ttgtgcgatg aatatagatg gaaagaatcg 360

tctggcttgt ttaactccgt tagcacgacc caaagcagac agttactgta tatectttac 420
 cttatatgta tgttatcaaa gatttggctg tggat 455

<210> 5267
 <211> 388
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-A8
 <400> 5267

tttctctcac ttggctttct cgtacgttct ctcacttcac agcacgttct ttcgacagcc 60
 gtgcaacacc ttcttgagaga ggtgggggttc tcggtttatc ctcgagtacc tgtgtcggtc 120
 ttcagtacgg cttttctctt cttttctttc ttctctctct tttcttctac tcctttcgga 180
 tttctattat gacgccgct tagactctct tctttctact tccttctctc gtaaaccctt 240
 cctctttctt accttttact tccttctct tgtttcgcta ctccaccag cattctctct 300
 tctcttcttg ctctctacc tcttaccctg attccgttcc tcttctaac cttttctct 360
 tctttttcgg atttcttttc tttcatgc 388

<210> 5268
 <211> 415
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-B10
 <400> 5268

aattcccggc tcgaccacg cgtacgatca tccaaacgga tgccgctatc aaccctggca 60
 actcaggagg accgctattg gattctcgag gaagactgat tggcgtcaat tgtgcaatag 120
 cttcaccttc aggagcgttt gctggtatag gttttgctat tcctgtggat accgtgaaga 180
 aagtagtggg acaaattatg cagtttggtc gagccattcg accttcgttg ggaatctttt 240
 ttgccccgga acaacttggg agaaggttgg gtttgagaaa aggtcttttg attctttatt 300
 tgcgacccaa tgggcctgca gagaaagctg gtttattggc aaggaagaga gaaaaaggtt 360
 caggacgatt gatcctggga gatatctca ttggtataga gaagcagcca gtgaa 415

<210> 5269

<211> 420
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-061-Q1-E1-B11

 <400> 5269

 aattccccggc tcgacccacg cgtacgcccc cgcggtccgag aagcggtggc tgttgcataa 60
 agagctatgt cggaagagtc agacaacgaa ggcgtggaga tcaagttaga gactgcacct 120
 catgaccttc gcttccggac tactaatcaa gccaagcact gttggtcgag atacatcgag 180
 tatcacgctt gtgtgaaaca aaaaggtgaa gaggacagcg agtgtcaaaa gtttaagcga 240
 tgggtacaagt cactgtgtcc tatggaatgg gtagaaaact gggacgaaca gcgtgccaac 300
 ggtacctttc ctgggtcccg gttagttgtac tgttccacgt gggccctttt ggagtttaac 360
 tgacctgttg tcggtattgt ccgtatggct ttttttgttc aataaagttt tatgtggtag 420

<210> 5270
 <211> 251
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-061-Q1-E1-B12

 <400> 5270

 aattccccggc tcgacccacg cgtacgcgga cgcggtgggca agcgtagagc agaagaactg 60
 ggtgtaaagg tcgagtagta gagtaagtgt aaaagggaaa ggaaaggaga gaaagaggaa 120
 agggatgaaa tgcagagatc tctagagaaa ggcaagaaag aaaagaaagg aagacacagt 180
 aaatgaggcg agaaagcata cgaagtgaag cggattagga acccgtgtag tctatgcagt 240
 aaaagaaaaa t 251

<210> 5271
 <211> 264
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-061-Q1-E1-B5

 <400> 5271

 caaccacgc gtacgaacat catcaaatgc caaagggagg aaagaaagat tcttcaaaga 60

aagaagccac aagtaaacct gcagcagcag atgctacaaa gacgacagaa aagtctgggg 120
 gggaagccaa gttgaaggga actggtgcaa agaaacaata aaaagttgac tatgcatgtg 180
 cagtcctggt atgttttgtg agttctgttt gatagtttcc agctattctt ttggtagtga 240
 ataaagagaa aattttttat attt 264

<210> 5272
 <211> 255
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-B6
 <400> 5272

attcccgctc cgaaccacgc gtacggtatg acgcattcat tggatagcaa acaattactt 60
 gtacgttgta gcgacagtca tcgaaagcga cactttggaa ataatggaaa gttgtgtcta 120
 tggcacacgc agaacgggac atcttccaca atgttgcta gtatacaact tcaacatcat 180
 aaatattcac ctcaatacgg aattttttca atctatccag atcctatatt accaccacgt 240
 ccacttgggg ttcca 255

<210> 5273
 <211> 271
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-B9
 <400> 5273

cccggctcga ccacgacgt acgattgaaa atgtcaagtc gaagatacaa gacaaggaag 60
 gtattccccc agaccagcaa cgtttgattt ttgcaggtaa acagttggaa gatggtcgca 120
 ctctctcaga ctacaacatt caaaaggagt ctactcttca cttggtgttg cgtttgagag 180
 gtggctgtta gtgagtttat cctgaagttg tttttctgct agttgtttgt ggtttgaata 240
 aaaatttgtt tgtggaaatt ttgattcgta a 271

<210> 5274
 <211> 423
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-C11

<400> 5274

aattcccggc tcgaccacg cgtacgagag aagaaagaaa agaagagaaa agccgtactg 60
aagaccgaca caggtactcg aggagaaagg agacccaaat taaggtgaga gaatggacga 120
taaggaacta ggcaaaagga tatggtatct gcggtagaac atatgaaaga agcagcaccg 180
actgttttagc aaaaacacag cactctgcag aaaagagaaa atgtaaagta tagagtgtgc 240
ggcctgccaa atagtagaga agaaatcgat gaaagtgaag gcgagtataa gatgaggtat 300
agagaatggc ggtcctaacg gtaaggatcc aaaggtagcg aagtaaatac acgtttgaaa 360
ggcgtccagt atgaaaggag aaacgagtgat agcactgtct agtcgtccaa ctcagcgaaa 420
cag 423

<210> 5275

<211> 322

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-C12

<400> 5275

gtacagctac gaattccggg ctcgaccac gcgtacggc tttgtgaatc tcaggcaaca 60
ctgacgtatt cttagcctct ttttgttttt cctagtcatt tctttgtcag gtgtagaact 120
ttgttgaaca tacatatgcc tgattggggg tttatatcgc cttttgttgc caaggaaaca 180
ttcagagctc agcacgcacc tggttcctct ctttttgttt caaattgttg ctccatataga 240
ctgagaagca atcgatttgc ttcattgagt gacagcagag ttagaagact atgattgagt 300
gtttacatgg gaaaggtttt cg 322

<210> 5276

<211> 373

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-C5

<400> 5276

taccggtgac gaattcccgc ctcgaccac gcgtacggg gaattgggtt tgattatcgc 60

cttggaatgg gaatacctga tatgtggatt gatctagtga ccaatttttcg agatgaagat 120
 tgggatatgg gaagaatggt gtatgggggtg accaacacaa gatggaacga atatactggt 180
 ggatatgtac aaagtcacga tcaggctctc gttggagaca agaccttggc atttcgattg 240
 atggatgccg agatgtacga caagatgtcg atatttattt ctccaaccga tcgaattggt 300
 cgtggaattg ctttacacaa aatgattcgc cttataacgt atgctttggg aggtgaagcc 360
 tatctcactt tta 373

<210> 5277
 <211> 390
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-C6
 <400> 5277

taccggctaa cgaattcccg gctcgacca cgcgtacgcc cacgcgtccg acttttgaca 60
 actttcctgg ttacatgaag tcttatatag atgtaggaca aaaagtacta agcaggcgca 120
 gtcaccaag tcgaagtcct gggaaacggg gaaaatctga agaaacttga gagttgaatg 180
 tcgatgtata gacggccact aacggccacg acggtccgca gtctcgtaaa gaaatagctc 240
 actacttgta tgaattgatc acctattaga tacactggaa tgaacagtct tttagtgtg 300
 ttctcgaacc cgagtaccga gcaattattg attgaaaaag tcctcaggta atggctacac 360
 caaagcttcg tttgttagac caagaaaccc 390

<210> 5278
 <211> 192
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-C7
 <400> 5278

cccacgcgtc cgcccacgca tccgaaaacg tcatgcagta gcctatacct tctgctgcag 60
 tcaaaacaga gtacgtggac cagggcaagt tgttatagac cctgtaagac atacaacaag 120
 tcctcatgtc acttgacgtt ctgttgtagg aatacgaatc tgctaccgag tagttactac 180
 tgcagataca tt 192

<210> 5279
 <211> 448
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-061-Q1-E1-C8

<400> 5279

```
taccggtagc gaattcccg ctcgaccac gcgtacggaa caaccacaat ataatatatt 60
ccatcgatcat cgagtagaga tagaatacga acctctttat agagagtttg gtttaggtac 120
gacgatttgg tcacctttgg gctgnggtat attatccgga aaatacagtg ggaagaatat 180
tcccgaaggt tcaagattat ctctggagaa gtacaagtgg ctgaaagata ctgcattttc 240
agaaagagag tggcaaattg aaaagacgga tcagttaaag ccaatagctc aagaactggg 300
ttgtagtgtg gctcagctgg ccatagcttg gtgtgcagcc aatcctaacg tctccaccgt 360
tatcacagga gctactacgt tggaacagct ggaagaaaat ttcaaggcag tgagtattgt 420
tcctaaattg acacccgaag tcatgagc 448
```

<210> 5280
 <211> 387
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-C9

<400> 5280

```
aattcccggc tcgaccacg cgtacggcct tgtcagtcac caagtcggat agaaaagttt 60
tgactgcaat tagtatggac actttttcta atactaataa tagtactaat aataatgggtg 120
acgatacggg ggaagtgact ttggagtttg accagcaact caacgacgat gaagtagaca 180
cgagtcacac acgttcaacg cctcctcacg gttttcaccc ggaaaagact cttcactcgg 240
tttcttctcc tactagagaa ggatatagta caggggttgca tatttggttt cccgataaaa 300
ttctttcttc tcgtcacgag gcaggagaat actctagtta tacgctggac gacaaaagtg 360
tgcagtcacc tctgttacat cctcctc 387
```

<210> 5281
 <211> 420

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-D11
 <400> 5281
 aattccgggc tcgaccacg cgtacgaaag gaaaggagag aaagagtgga agaacaatgaa 60
 agcacagaag aatgtaagaa atggttagag taaaaacat aaaggaagta aaagcgggaa 120
 tctgagagga ggaaagccag attggaactg agaaaaggtc caaacaagag aagtcagcag 180
 tggggaaaat tgggcaatgt acaggaagt atgaccagat aatgaggagt ggagtaaaca 240
 gaaaaggaag taaaaggagg gaatgaagg aagttatggc aaaaacacgt gccagcagca 300
 gcggtaaaac gtgtgtagca agcgtagagc agaagaactg ggtgtaaagg tcgagtagta 360
 gagtaagtgt aaaagggaaa ggaaaggaga gaaagaggaa agggatgaaa tgcagagatc 420

<210> 5282
 <211> 430
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-D12
 <400> 5282
 ggtaccagtc acgaattccc ggctcgacc acgcgtacgc ccacgcgtcc gccacgcgt 60
 ccgagagggt ttaccaagtc tgattacctg gttgacgctt tattacgtag tcacactgaa 120
 ggtgagagac aaagggttgc tagagaacaa gaaaatactt cacagtatgg gtcaggtcgg 180
 aatggaatgg aaccttcttt tgcagataaa tatgagggtc cagtacatat tcaagacaac 240
 gattcctcac cggattctgg tgaagaatca ggaaaggaac cacatgttat tcctcgccag 300
 caagtgaaag attcagagtt ttcaagactt ggacagcaat tatctgaaag agcttggggc 360
 tctttgaagg ctttgctctt ttcattcttc tccatggacg ttgcacagta ttattttcgt 420
 gaatatctac 430

<210> 5283
 <211> 411
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-D9

<400> 5283

aattccgggc tcgaccacg acgtacgcc acgcgtccgc atggaacgta tcatgaaggc 60
acaagctttg cgtgattcgt ccttggcaat gtacatgtca tcgagaaaga tgatggaaat 120
ttatccgaag agtgccaggg tgcaagaatt gcgtcaccgt gtggaagcag ataagtcaga 180
caagaccgtg aaagacctgg tcaattgatt atttgacact gcattgttga cttccggatt 240
ctctcttgac gatcccaacg tttttgcctc tcgtactcat cgcataaata agttcgggtc 300
tagctttgac gaagatgaag tcaactgaaa gatggaggaa gatttaccac ctgcgatga 360
ccgagcaaga aggaacatct gcaatggatg atctacacta gcccttggac t 411

<210> 5284

<211> 426

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-E10

<400> 5284

gtaccagtca ggaattcccg gctcgacca cgcgtagca agaattggttt ttctctcgta 60
tttgctgcag tggctgcagt ggctttgctc gtttctcttc ggaatagaaa gcgtcgaaat 120
actcaacaga ctagtgctgt ttcgaacgag gcaatgaacg aaactttttg ttttgaatat 180
tctgtaggaa acaagtcttc tgtctcttca ggttcctatg caactacgac aagaaatacg 240
ggagggagac taaagattat atttcgtggg gttactcgag tgactttagg aacagacttg 300
gagaagagtt gtatatttcg acgagtttct tctttagggt aaggggaaaa agtacaaata 360
gacctgaca agttacatgg gttgatgcag ctctatctc tttttgaagt tttcttgatt 420
ataaga 426

<210> 5285

<211> 429

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-E11

<400> 5285

aggtaccagt tgggaattcc cggctcgacc cgcggtacg cccacgcgtc cgcaacgtgt 60

acagcaattt ttagagcctt ctgtttgggt ggagttttca ccactatcat ccttgtgtga 120
cgctatcaac ttgggtcaag gctttcctga gtggaagcca cccaagtttg taacggaagc 180
tgcacgaaa gctacgagcg acccaagttg gagtcagtat gcacgttcga gtggtttaca 240
gtctttggta tcgactatta gtaaaactta tgcgcctctg ttgcaaagga ccattgaccc 300
ttttaagaa gtttgtgtga ctgtgggagc atcggaagct atctttctag cttgtcagtc 360
tttggtagaa cctggagacg aggtcatctt tgtggaacct gcattcgata tatatttcgg 420
tgctgtaat 429

<210> 5286
<211> 380
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-061-Q1-E1-E12
<400> 5286

gaattcccg gtcgaccac gcgtacgggt aaacatggtc cgcttcaaga tgagacagtt 60
gcaaagattg ccaagaaaca tggaaggaca cctgctcagg tattgatccg atgggtgtcta 120
caacgtgggt gttccgtgat tccaaagagc gtaaagaaag aacgtatcaa ggaaaacttt 180
gatgttttat tcgaattgag tccacaggat atgaaggaat tggaagcctt agataagaac 240
ataatctca atcatcaaaa ggaatattgg ggtttcaata ttcacgcttg agagagtctt 300
tgtcgtacaa taaacaaatt tcttgttgtt gctggcaaaa aaaaaagaat agggaagaga 360
caagaaaagt aaataggaag 380

<210> 5287
<211> 282
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-061-Q1-E1-E5
<400> 5287

taccggctac gaattcccg ctcgaccac gcgtacgcca caacatgcaa caagacgagg 60
atgtggaatg ctttccgatt cagtcacaaa cgactagtct caaacgcaat aaactaatca 120
acgatccagt tcaggacag gtggagttgc aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180

aaaaaaaaa aaaaaaaaaa aacaaacaaa aataaaaaag aaaaaaaaaa aaaaaaaac 240
cacagaaaaa aaaaaaaaag gggggccacc ggggaggaat cc 282

<210> 5288
<211> 444
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-061-Q1-E1-E7
<400> 5288

gtaccggcta acgaattccc ggctcgaccc acgcgtacgc gttcttgtca gttccaataa 60
ggaagaggcc atccctgcga atcttcgatt ggtgtgcttt gcgttcgttg cctcgtgccg 120
tattgaaaca aaaactctgt gttgttttcg tgctgggaga ctactttttt tcgttgctgt 180
agttgttcta gtgaaactca tagatggcag ctgtgctttt tgaagacgtt ttttctgtag 240
cagaggttga tatggtaaag gacccaagg atccttctcg caagataaag gaaaagaagt 300
ttgacaaagt ttccaggata ttatgtcacg gagaaaatta tcaaaccgaa ctcttgctgg 360
acataaatag cgaaatttat cctattcaag agaacgaaaa gtttgagatg gttttagcgc 420
ccacactttc gtttagcggg cgac 444

<210> 5289
<211> 367
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-061-Q1-E1-E8
<400> 5289

taccggcagc gaattccggg ctcgaccac gcgtacgatt ttggattcca accttgtgta 60
taccttgcta agctgtttat tcctactgat ctttctacac acaccaacaa ctacatacat 120
gtattgcgtg cgagaagccg ggagcgggag atatttatgc taccatatcc aaagaagagc 180
tatactctcc acttgccctac aatcttctat aagaaactaa accttttcgt caccctgatt 240
caacaacggt tgctgatgct ccgtcccgtg acccttgtgt caaacaccaa cagtattgct 300
aaaacttaca gactcacggg tttctgcaaa atccactcgg gtggaaagga tttccatgaa 360
ccccact 367

<210> 5290
<211> 414
<212> DNA
<213> *Cyanidium caldarium*

<223> unsure at all n locations
<223> Clone ID: LIB190-061-Q1-E1-E9

<400> 5290

aattcccggc tcgaccacg cgtacgggcc tcgaatggag ctcggaagct attcctttgt 60
tggcacatat gaagcagctt ttagccgtta caaaagctac cacttgaaga aagagtgttc 120
tataaaagca agatacgggtg caactacctc gtcacctact cttagaagtc tgttgtactt 180
gagaaatana atggaagaaa gagaccaca tgataagagt ttctttctcaa ggctttttca 240
ctcaagcctt agattttgta gacgatgtgg aaaagcattc gtagcagctg taccaattat 300
ccccaccaa cttgtagaga aaagtcctgg tgtatagtgg aacaagtttt tgttcgaaga 360
tataatgctt gctaacacaa agtttgatag atatgtcctt ccagatattg caat 414

<210> 5291
<211> 383
<212> DNA
<213> *Cyanidium caldarium*

<223> Clone ID: LIB190-061-Q1-E1-F10

<400> 5291

aattcccggc tcgaccacg cgtacgggga cgcgtggggg ttgtattgct tccctcgaat 60
caaaaagagt ctgccgtata cgaaactaac cgaataataa gtttgcttga aaaattgttt 120
gatactgctt taactcggg ttccttttga cttataagaa gtgtgaagca ctaatttata 180
agaattgtgt tatttgga aaactttatc cataacgcaa aaaaatggag attggactct 240
gtaaaagtac tctttgtaga ttttgaaata cagaaacaat cgcacggac atatgttgca 300
tttgatgcag attttgatgc cgatcaaatg ttcagtaaag aattgtcgtg cactatttcc 360
aattattgca taggataagt taa 383

<210> 5292
<211> 412
<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-061-Q1-E1-F12

<400> 5292

aattccnggc tgcacccacg acgtacgggt gcgttgccgc gtggggaaaa aacctcaaaa 60
acttttgggt gcaatgctca agcgcttatg ttggaatgac atagcggatt attaaaaaaa 120
atcctccgga tattaaggag aataaccaat ttataaacca ccaaattaaa atttccaagg 180
acaaaaggta accccaatcc taacaagggtg aaaccaataa taatccaatt caaaaaaatc 240
ccatctctaa ggaacagaaa gaagacctgc ctgctcaaac tcgaacaaaa cgcacacaaa 300
gacattccac tggaacacaa tggttacagt ctagtaaaaa gacacgaata gtctccccta 360
ccatacacga tatttgtgaa ccatttggaa ttgtcttcag agaaagaaaa ag 412

<210> 5293

<211> 445

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-F3

<400> 5293

aattccgagg tgcacccagg cgtcagccca cgcgatccgt tcacttggtg aggtagttag 60
acaccatgtc ggatctttgt ttcaacctgt ctttaaccct tggcagtaaa aagacgaatt 120
ggaagcaagc tagaaccgtg tgaccagggg atggagtcaa ctcaagtgaat gcaagcacia 180
gaataggcga agattactct gttttacttg ccttggtcag tcgtcgttat ccgacaacta 240
tggttatttt gagcaagaac acaattattt tcagcaagtg ccgaccaagt ggaaggaatt 300
ggtaaaggat gttcatcggt gttttgttat tgcttgata cctggaaaga aaccttatac 360
ggtggcactg tcggacttta tctacgcaac agcaagttgt tttaacaacg gtataccttt 420
ggaactattg aaagattcgc tgaaa 445

<210> 5294

<211> 443

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-F4

<400> 5294

aattcccagc tcgaccacc cgtccggtgg tggaaacggt gggtgccttg gcggacaagt 60
atttagaaga aggtttgcag ttggctatcg atgttcgcca tttgtacggt gtcaaggaac 120
gctatttcga tatctgtgga ttaggcggac gtttggaagc tgctttgaat tgcttgcggg 180
agatgagtcg cgatccccag ttaccttttc atattcctcg aactcgaggt tgtttctatc 240
gagcatgggc acgatatatc gtagaaaaag gcacttgttt aggaggaata gaagaagcat 300
tgcaagatat gaaatcttgt caagtacctt ggaacgagcc atgtgtgttg gcagctattt 360
gtatgtattc cgagttggga tatccacaac caagcgttgg atatgttgcc gccggcgggt 420
gtcgaacgct tttggttacc tat 443

<210> 5295

<211> 326

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-F5

<400> 5295

taccggctca cgaattccgg gctcgaccca cgcctacgcc cacgcgtccg gtgtgtgtat 60
gtctgggaat agagacattg ataccgaaa cccttatacc tctgtaagta taaagactac 120
atcccaacca actggcaccg gggccaaagg ataatgtaaa aacattctac cttatatcag 180
aggtatagct actcttagat tgggtgattg tttggccaca gtaatccaca accaacatac 240
aggtgacatt agaactacag cactaccagg gtcatcaact aaccaacaca ttgaaacgct 300
gtctaaaggt atataaacgg ttatac 326

<210> 5296

<211> 420

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-F6

<400> 5296

taccggctac cgaattcccg gctcgaccca cgcgtacggg ttggacggag caagcaagaa 60
gaatgtggtg gttggtctag aagtactaat aatagtgggt gagacatcgt tgtgaagata 120

gtttttcaat tccgttgtga ggagtttagg agatttgttg ttggaaaaca tatgagacag 180
 tggatacaac tagtaacgag gtgttggcac ttgaggaggg tcaagggtccc acccaactcc 240
 ttgccgtgga gcagtacaga agtgccttgg agtcgtcgtt tttgggataa caaccttgca 300
 tttttatcta cgataaacta ctctcaaagc attgttgtgc ctcaattcaa taaacttgtg 360
 gaaacgagtg aacatcggtt ggacgagttt ccagggtgtca tccagtctcc ataactgggg 420

<210> 5297
 <211> 317
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-F7
 <400> 5297

attccccggt cgacccacgc gtacgcccac gcgtccgccc acgcgtccgc acagattgag 60
 ttgcgtgcca agaattatga agaagctgct cgtctcgtct ctttgggtgga gccattggaa 120
 cgtaccagtg ttagggatg gcaaacctat gctcagatag aaagtgtca gggtcatttg 180
 gaacaagcct atcattacta tttgaaggct cttgagttgg atcccaacaa tgtactagtt 240
 atcgaatgtc tggcagaatt ggaagcgaaa aacggtaatg cttatgaacc aaggagtatt 300
 tttagaaaag ctattga 317

<210> 5298
 <211> 400
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-F9
 <400> 5298

gtaccagtag ggaattcccg gctcgaccca cgcgtagcaa tcagacgagg ataccgctg 60
 aacttaagca tatcattaag cggaggaaaa gaaggcaagt agagggcggc ccgagaaaagg 120
 agagggcgta agacgtgata cagagtagga ggaaaagaga agagagctag aaaggagta 180
 aaagaagagt aaaaggacta gaagaggtac ggaattcacg aggaaggagc gtgaaggaag 240
 gaggaatccc aagtaatcga ggaagaaaaa gcttcggtga aagcgtgaac ggattttgta 300
 cacactgccc gtcaagttct ggaagtgtgc taggaataag caggagaagt agaagagagt 360

aggaaaagaa gaaaggaagt gaagacgtaa gacgtgaaaa

400

<210> 5299
<211> 333
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G1

<400> 5299

acgaataaca caactattcc ttattttcgc aaaacttggt ccttcagtct aaagatgtgg 60
cgtcctttgc aaaaatcagc atacttttgc gtccataata atgcgcaaac caaagactat 120
cggcaagagc taaaacaagg gcaccaacaa tcagtgtaac aaaccctcga atgggtttcga 180
ctatatacaa attagaatga aaacattcaa tcaacagacc gttccaagta aacacacaca 240
ctagaaagcg ctgatacaca aaatgcgcca aaaacgacaa atagtcctgt ttcactttcc 300
cctgaaagct tttctgtcaa ttttgtccca tga 333

<210> 5300
<211> 414
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G10

<400> 5300

gaattcccg ctcgaccac gcgtacgcc acgcgtccgc gtcacgagag aaagagcgag 60
agaggttatg ggagacggag ggataggtaa gtaaatacga ggcgacctgg tttttttttc 120
catcccacgt tggtagcgtt tgtatgtaca ctcgttgggt gtattgcatt gttgtggttt 180
ctattacaac tggctattgc caatccgcaa tatcgtagtt ggaaaaaaga gtggatagct 240
atcggtgttg cgtcgatagg tttgggagaa ggattgctat ttatgttgat atacagtgga 300
caaagtttat gaactagggt tggttttccc tggtagttga ggacaggtga aatattttcc 360
tggttgcttg tctcactcgt cgagccccc gttgtaataa attgccgcta gcct 414

<210> 5301
<211> 413
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G12

<400> 5301

gaattccccgc gtcgaccac gcgtacgcct gtcctccac ctatggatta tattaagaat 60
tctggagggtc ttcacaatga tatggcaatt catgactttg atatcgcacg ttttatgacg 120
ggaagtgagt gtgaagagat tactgcttat ggagcttgct gtgtggatcc aaaaatagct 180
tcagaaggaa acgatatcga tactgccatt acgcttctca agtttaagaa tgggtgctttt 240
tgtacgattg acaattgtcg tcaatcacct tcgggatatg atcaacgagt ggaagttttt 300
ggttccaaag gcctcggttcg ttttggaac aactttccca ataatgtctt tattgaagat 360
gcgcagtcgcg ttccaagaag tgatcttccc ttaacttct ttatggatcg tta 413

<210> 5302

<211> 449

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G3

<400> 5302

aattcccagc tcgaccgcg cgtcagccca cgcgatccga aagaggcaaa tacgggaaag 60
cagtaaaaga agaaagagaa aggaaaaaac tgagtatcag gaagaaaaga gggagtagat 120
gaggaaagaa agatcaagga ggtaagagtg agagaaggag taatgtgaat gaaagcagga 180
aagtatttga agaagagagt gtaaagcgcg taccttttgc ataatgtccc agcgagtga 240
agaggaagca aaaagaaaga aaaagcccag aagccaagat aaggtatcaa agtaaagaaa 300
gaaggaaaag gagaagaaga gagggtaggc ttagaagcag caaaccagag aggaaagcgt 360
taaagcaatg aaagaaaaga aatccgaaaa agaagagaac aaggtaaaga agaggaccga 420
atcagggtaa gacgtagagg agcaagaag 449

<210> 5303

<211> 447

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G4

<400> 5303

gaattcccag ctcgacccgc gcgtcagccc acgcgatccg atggagtcca atgcacaaga 60
gcgcccactt gtctttgtga caagacaaga aagtttctca gcagctcata gactgaatag 120
ttcgaagctg acggaagagg agaatgtggc tatttatgga aagtgtaca acgaacactt 180
tcacggacac aacgttgtat actgtgaaag taaccattcg ggggccagta catccagata 240
ctgggatggg agtgaacctt agttcgttga aggaagccat aagagaactc attgtggagc 300
cttttgatca caagaatttg gacttggatg ttttcgaatt ctgcaaatta ggtattccta 360
gcactatgga gaatctagtt tgtatcatat ggaagaaatt attcagtcgg ttcaaggact 420
tgctttacga cgtagttgta caggaaa 447

<210> 5304
<211> 389
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G5

<400> 5304

gtaccggcta ccgaattccc ggctcgaccc acgcgtacgg cagcaaacgg ttcaaaaaag 60
ggtatttagt aaagaagaat gggaaaaaaa gttgtctcaa gtacaagtgg ataggaggga 120
cctcaacttg ttggtgatca acggggctcg gatggaaggg tacaaggatg ctgcagaaaa 180
gttctccgaa gaaacgggat tggatcctgg tgtggaccta aatactatac cagacagaat 240
ggctattcga actgctgtgc aacaaggaga tatccacaaa gctagcgaat tgggtcaacga 300
cgtcagccct ttgatattgg actccaatcc ttgtctgttc tttcatctgc aactgcacat 360
actaatagag cttattcgac agggaaata 389

<210> 5305
<211> 438
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G7

<400> 5305

gtaccggcta cgaattcccg gctcgacca cgcgtacgcc cacgcgtccg agaacgctct 60
gtcaaaagga gatagtgaac tatgtcataa gctatttggt gaaaatccta gtgctctgac 120

aaccctacaa cgccatatgc gcgcccagga gtttcctgcc gaatatttgg acttggcacg 180
aaagggttttc catgacttat caggcaatac aatttcaaac caaggagaag gcgaacgaac 240
agtcttccaa ttacaaattg cacttgcttt tctaaagctt gagctgcaac tgccaaagtg 300
gtattttgaa aggcggcagt tggaggcgac tttttcgatt gttatcaatg aactgctgag 360
taactcaaca actatcgttc gcattctgac acggggaaac gctgtgcaag agcaacaaca 420
ttgtacatta tgtgaatc 438

<210> 5306
<211> 429
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G8

<400> 5306

attccgggct cgaccacgc gtacgtgata ttcttttcga ccaacgctca attgaaacaa 60
ctatttcaag gctcttcaga gacattagat atttcttatg tattcttgtc aggtattagt 120
gccgatggtt tagcgtgcgg tattatccac tcctatggat gtgatcaaga ctcgactcca 180
atctgccaat tctccttacc gaggtattat cgattgtttt gttcggacat tgcgagaaga 240
aggattgggc aaattctttt caggttctat tgcaagagct tgtattgtat ctcttttatt 300
cggaattgct ctcttgtttt atgaaattca aaaaagattg gcgtcttcat tggacaacta 360
gatctgcaca actacaatcc acacatacga tacagccatc atctcttaca gatattacac 420
gagtgggaat 429

<210> 5307
<211> 384
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-061-Q1-E1-G9

<400> 5307

aatgcccggc tcgaccacgc cgtacggaaa ggaccacaca tctattatgt ggatagtga 60
ggcacgagat tgaaaggatc aaagttttct gttggttctg gttctacca cgctttgggt 120
gtgttggaac aaggtagca gtggaatatt tccgtggaag aggcctgtga acttggaaga 180

cgttccatct atcacgctac tcaccgagac gcatttagcg gaggctatat taatgtgtat 240
 tatatcggtc ctgatggttg gaaatttata agtcatgagg atagtggatt cgataagcat 300
 tatcaatacg ccacagaaaa agccacgcaa caacaacaac aaatgagcat atcttgaaat 360
 aaatttcacc gtttcttttt gcat 384

<210> 5308
 <211> 422
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-H11
 <400> 5308

ggtactagtt cggaattccc ggctcgaccc acacgtacgc ccacgcgtcc ggggaagtta 60
 tggcaaaaac acgtgccagc agcaacggta atacgtgtgt aacagacgta gagcagaaga 120
 acggggtgta aaggctcgagt aatagagtaa gtgtagaagg gaaatgaaac gagagaaaga 180
 ggagagggat gagatgcata gatctctaga gaaaggcatg aaagagaata atggaagaca 240
 cagtaaatga tgcgagaaaag catatgaagt gaaacggatt atgaaccgt gtattctatg 300
 cagtaaaaga aagaatgagt aagaaacaag ggagtcattc caccagggga gtaaaggcgc 360
 aagaaagaaa ctacagagcaa ttgacgggaa tcggaaaaag ggggtggatca cgtaaattaa 420
 tc 422

<210> 5309
 <211> 426
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-H4
 <400> 5309

agcccacgca accgcccacg cgtccgcca cgcgtccgca atatgttacg cttagtgttt 60
 caagatatatt atcctgtgaa catgcgcaag gaagaagatg aaggaacctt gtttgggaga 120
 tgtccagatg atatttatga tggctatact agtaacgttc caggaaatcc gtggattcta 180
 tgtacttttag gaatggcgca atattattat gaggttggcag cagagtgggt gaaacatgaa 240
 aagattgtca taggaaagtg gagcaaagac ttttccagac atttgagggt tatgcctcct 300

ccttctcctc ctcaatcttc tatatcgacg accattactg gaaaagccga ttggtattta 360
 tgtttctgcg ctattagaag aaggagatcg cgtattgaat gctattcgaa agcatacagt 420
 tcctag 426

<210> 5310
 <211> 332
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-H5
 <400> 5310

attcccggt cgaccacgc gtatgccac gcgtccgat gaacatgccg aacagatgag 60
 caattgtttg gatgtcattc gatatttttag tactcacttg tatgcttcat aaatacactt 120
 gatgcctaag cttttggcaa aacaaaaaaaa aaaaaaata aataaaaaaa aaaatatata 180
 aaaaaaaaa caaaaaaaaa aaaaaataa aaattaaaaa aaaaaaaat aaataaaaaa 240
 aaaataaaaa aaaaaagggg ggcccccaa aaggatcaaa tcttattaac ccttcaatgc 300
 aacttaataa cccttcaaaa atttcaccaa aa 332

<210> 5311
 <211> 370
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-061-Q1-E1-H6
 <400> 5311

aattccggc tcgaccacg cgtacggcag tttccacctg taacctacga tcttgcttac 60
 ttgctgaac ccatcaaaca agtattgtg ggtgctgctc ttggaagttt atttgccaac 120
 gcactttgtg gtttcagtcg ttgttttgaa gccacaaag gacgtaacgg tgctctcatt 180
 tctctgctac gcagtcgttt ctttattgct acttgattg cttggctcta tttgaacgat 240
 gtttggtggtg gaaaagaaga atctgtttcc actttattac ccagttgtcc acttggaag 300
 aactttgatc acaactttgt ttgggcactt gtattagtag tcatcaacgt attacgtgca 360
 aaaggtgcac 370

<210> 5312
 <211> 342
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-061-Q1-E1-H7

 <400> 5312

 attccgggct cgacccacgc gtacgccac gcgtccggtat atctgagatt ggcagcggtc 60
 tgggaaaagt atcgggtacaa catcctttgt atgaggttca aaagaatacc gcagaatatg 120
 agataagaga gtacgggagc ttaagaatag ctgaagttca tccttcagac tggactcaag 180
 aagagaatgg ctccgcatac gactttgact cgcaagcatt tcgagtgttg gcgtcctaca 240
 ttggtgtgtt tggagaagcc aaacacacag atagctccaa cagcaagtt aagatagcaa 300
 tgacagcacc tgttttatca cagcccatag ggtccgtgga aa 342

<210> 5313
 <211> 442
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-061-Q1-E1-H8

 <400> 5313

 aattcccggc tcgacccacg cgtaagctac agtaatgctg gacaaggggt atacactatc 60
 acgtcgaaag cagagttttg tcgtcttcga gaagaactga aaagtgtaaa gtatcagaat 120
 ttcattgtag aaagctggag taagcaatca tgagtggagc tctgtgtatg aaggctactg 180
 cctgtttcat atgggaacta tacctgacaa acgcggaaat attcatgttt ttgatcttcg 240
 aatgatggtc tctggctcgg aggatggatt taaagttgta ggactatatg cgagacgggc 300
 caagaaacct ctttcaaaac agctcgaaga tggaatgaac tcttgggaca tgttaggaac 360
 gaacctcagt attaaaatgg atgatggaaa ctttgggaagc gaaccggaaa gattgctgtt 420
 gatggattca agagatttca at 442

<210> 5314
 <211> 405
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-061-Q1-E1-H9

<400> 5314

aattcccggc tgcacccacg cgtacgaaca aagttacctc aaccaaagga agtcatgcag 60

aagccctcct tttggtccgt tttgaaggat tccataggaa aggatctttc caagatatcc 120

atgccagtaa cctttaatga acctaaatcc tttttacaaa ggatggcgga agatgtggaa 180

tacagcgaat tgctggataa agcagttact ttagaggatg agtttgatcg actgttatat 240

gtgagcgcca tggctgtaag tcattatagt tctactgtgg gtcgaaccgg aaaacctttc 300

aatccaatcc taggcgagac gtatgaattg tttcttcag agaagaattt gcgctttgtt 360

agcgaacaag ttagtcatca tccacctata agtgcttccc atgca 405

<210> 5315

<211> 211

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-062-Q1-E1-A11

<400> 5315

gtaccgtact agaattcgnc ggtcgaccca cgcgtacaga gtatcaggaa gaaaaaatgg 60

aagaggaagc gaaacgtctt cgaacgctgt ggatgtgaaa aaggaagtag caacaaaagg 120

aataattttt gttggtcatg tccataaaag ctataattcc aatagcaact gtactcaatt 180

tcgatgaagc aaaataaacc actttttaat g 211

<210> 5316

<211> 215

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-A12

<400> 5316

ggtaccggac tagaattccc gcgccgaccc acgcgtccaa aaaaaaaaaa aaaaaaaaaa 60

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa tgaaaaaat aaaaaaggaa aaaaaaaaaa 120

ataaaaaaac gggcgccgc ccaagatgga tccaaagctt aacgttcctt gcatgccact 180

tcacagctcg tcaaaagcgt cacctaattt caatt 215

<210> 5317
 <211> 431
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-A5

<400> 5317

```

cccgggccga cccacgcgtc agcgaactac gccaaagttaa ggccgaacaa gatgcaaagg   60
atcgcaggtt atttggaat atgtttgcac gtttaggaca aattgaagac gatattcata  120
agaaatcaaa cgaagaaacc aaggccaaag aaatcactgc ctcttaatga gctcaacttt  180
ttttatttgc agttaccata taaagaggat ctaacatgtc gttttagttt tacaacagag  240
tactttgggc agttacctgt gataccaaaa ttgggactca agtcgtacgc tcttgagta  300
gtaaacattc cactagtgtc cggttatatt cgtgctttcc atctatatat aagttacttg  360
cctataatgg aaaaaacttc caacaatata tactcgttgc tataaaatac ttttatgaac  420
attcttcgtc c                                                    431

```

<210> 5318
 <211> 413
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-A7

<400> 5318

```

ccggggccgac ccacacgtca gcggacgcgt gggctgcata gctctgatgg atactataga   60
tatatagtcg atggaaatgt gatattggga gataggaatc catccaccaa gcatcatctt  120
attgcatcgt gtgagaattg ggatgatgca ataagagaac agtctgttta tcgagttggg  180
aaacgaatga atcaaatagc agcagaatat gaaatatttc aaatggaaac ggaagcaacc  240
gttgatttat ttcatgcgat ggagttgcat cttgtggaca ttatccaagc aactcgacaa  300
caacaataac taggaggagg aacaagaagt agcaatatat atcgaccatg gaccaataga  360
ttgactactc gtgacctttt tcgtttgacg gaatatgctc aagatatatt ggg          413

```

<210> 5319
 <211> 443
 <212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-A9

<400> 5319

ttcgccggtc gaccacgcg accgatttat ttagcctcat ccatatcaac cacttgtcgc 60
aaccagtggc atagacaacg atatccaatt gtggacgccg agttctcgtc ccaatgtatt 120
gagtgaatat gatatggata agcgagtga taagaatatg gaaaagttga atgaaattct 180
caaaagaccg cattccgtcg gcaatagtc agaagtaaga tatttgctg ttccttatcg 240
tttgtactgc taatgttgag ttgcaataga cttttgctca tgtcattcag aacttgatga 300
gactagagta tcttcgacct caagattatg aagcaggtg cactattcta tagtcagtga 360
acatttatga cttgtggtat caagtgcag aattatatta tgagaaaaa gattttccag 420
ataaaggatg attatatatt tag 443

<210> 5320

<211> 425

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-B4

<400> 5320

cgggccgacc cagcgctcaa gagaagatca acttagatgg caaatgactc cgaggaacta 60
acgaagcttt ttgaccaata tataaatact tataaagagt caggggtggtg tatagaccag 120
cagaacttgc aaataataag agtggtgggt aatggcgcaa gtgggacaac ttacgaagga 180
aagtatcgag atataaaagt tgcagtgaag gcttattctg caaagatatt aaaggaggat 240
tttgaagcg ttcgtaacga aatggagctt ctggcacact tgtcacaccc taatattatt 300
aagttttatg gtatttggtt tatgacaaac cccttcgctg cttgcctcgt aacagaactt 360
gccccaaacg gagaacttgg caaggcgcta tatcccagat ctggtataaa catcttttca 420
aagct 425

<210> 5321

<211> 431

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-B6

<400> 5321

aattccccggg ccgaccacg cgtccactct ccattacgat tcgatctgtt tatcaatgag 60
ttacttatag acgatttggg aaaattggag cccgtgtggt ggcatggttag cagcttcggt 120
agagtgtgtc gaacgccgat ggaatgttga gtcgcaagca tttccacgaa agcctacaca 180
tcaatccatg cggaattgga gtggcgggtc gctttacca ctacaccaca ctacactgtg 240
gattttaatc attaaaaagg atccttgtcg ggcttgaatt ttgtttcttt aggtagaaca 300
cattataaat tggtcagaa ttttaatttac gatgtgccat atgagggtac agatggctgt 360
ttggcttggg gaagctgcct gtaagatcgt atttaccact tagggaacat agttcgcaat 420
gttattcaca c 431

<210> 5322

<211> 415

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-B7

<400> 5322

aattccccggg ccgaccacg cgtcagccca cgcgtccgcc cagcgtccg gttggtggtg 60
ggctgctgtt gccatatcgt tggttaagcaa acatgggagc ctacaagtat atgcaagaat 120
tgtggagaaa aaagcaatct gacgttatgc gctttttact ccgctccgt gcttgggaat 180
atcgacactt gccttcggtt caccgagctt ctctccac tcgtcccgac aaggcaagaa 240
tgcttggtta caaagcaaag caaggttatg taatctacag agtgagagtc cgtagaggtg 300
gtaggaagag accagttcca aagggtatcc aatatggcaa acctaagaat cagggtatca 360
cacaactaaa attcaagaga aataagagat cagttgcaga agagcgagct ggaag 415

<210> 5323

<211> 301

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-B9

<400> 5323

attcgccggc cgacccacgc gtccacccac gcgtccgcag tgaaaccaca ggaaagcagt 60
 gtcgctatgg ggccaagttg gcagcatatt gtagaagaat atgacccacg gagacccaac 120
 gactttgaga cttgtgtgag agaaagagag tggagaaaaag cacaacaagt ccagtcaagt 180
 tttgcacagt gatacatatc tatatgtata gagagagaga gagagagaga gaaaagttta 240
 cagctgtttt tatgtcgagg ttgtatgaaa aactatggag gatgaaaaca ctttttgcgc 300
 c 301

<210> 5324
 <211> 390
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-062-Q1-E1-C1
 <400> 5324

cgggccgacc cacgcgtcca cccacgcgtc cgaattcatt tgccataatg acgaccactg 60
 gttgttgctt ggaaaacttt gatcatagc catcagaaag tgcttctttt ggtgtacggg 120
 aaagaaaacg aaaggaacat gttgataaaa catcaaagac tccaagtaa aacacctcaa 180
 ggagaccgtt ttatacctaa tcgaaatatg atgaatatg aagtttctcg acttcatcta 240
 caacaagaaa ttcttgaaa ggaaaacaaa caacacaata atacctttca agatgcactt 300
 ttagaaagta atagtgaatg gagaaagaac ttttttcat catcgtcgtc gtcaacttgt 360
 cagccgtatc aaagtgcctt ggcaagttca 390

<210> 5325
 <211> 321
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-062-Q1-E1-C11
 <400> 5325

acagtcatac taaaactttg ctgtgtcata tgcgagcaac aactaggagc tcccagtgca 60
 ttccgttgca tatgtcacgt gacatcctaa agtattaatg ccagtgaagta caaattctaa 120
 ttctctatcc aaaatacagc cagaacaaaa ctctgcatcg aaacatgtat agtactcgtc 180
 gggatttttt cctttgctaa gcctgggacg agtcagtagc tgttggcttg aatgcctgcc 240

tcttcccttt ctccgcttgt gcagaattgc tccgctgta attctctata aaagtaacaa 300
atggagtgtg tgaatgtann a 321

<210> 5326
<211> 432
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-C2

<400> 5326

cgggtcgagc cacgcgtccg atctgaaagg cgaattcaga ccagctcaga catatcgaat 60
atataataca tggatgggtg atccgcttcg aatgttgcaa ctccacgtta tcaccaacgt 120
tatcgaagga gaaaatcttt taagaagggt ttcggatact ggaagttttc taaagatgga 180
acttgaaaga atttcacaag agtatccatt tctttagacc aacgtaagag gcaaaggagac 240
cttcttagcc tttgatacgc ctgatggaga gactcgcaat caacttttat tcgaaatgcg 300
tcaaaaagga gtccaaattg gaggttgtgg tgaaaatact gttaggctaa gacctccact 360
gatatttgac caacaagatg caaatattct actagaaacg ctacaaacgg tgttgaggaa 420
atttaagaac ca 432

<210> 5327
<211> 311
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-C4

<400> 5327

aaaagtcaac tttgttttcg ggcaaacacc cggaataat cccgttggtt tccgcaattg 60
cccgtgtgga agtttgtgcg gtttttgtga gcatcaacaa cttgtttaat aaccaaccg 120
tggtaccctt caattcaaag cggaagcgt attcgcgcaa ttagaggcaa cttgacaatg 180
aagacagacc ctttttgaat ttggtgaaac cacttcgtga ccgtccaatc agtttaattt 240
cccaaataga tgaaaatacc aggattcccc attagttgga tagtacatta aatagttggt 300
gagctttagg t 311

<210> 5328
<211> 137
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-C5

<400> 5328

aaaactcgcg tgttcttttc aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa agaaagaaaa 60
acaaaaagaa taaaaaaca aaataaacat gaatacaaaa taaaaggcac atcaacagtg 120
tcaccaaaaa ttcaatt 137

<210> 5329
<211> 338
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-D11

<400> 5329

acggacgcgt gggcggacgc gtgggtttct tggtagcagt tgtacattca acatcatcaa 60
atgccaaagg gaggaagaa agattcttca aagaagaag ccacaagtaa acctgcagca 120
gcagatgcta caaagacgac agaaaagtct ggtccggaag ccaagttgaa gggaactggg 180
gcaaagaaac aataaaaagt tgactatgca tgttctgtt atgttttgtg agttctgttt 240
gatagtttcc agctattctt ttggtagtga ataaagagaa aattttttat aaaaaatcac 300
tgtaacatgg cggcgagacg tggcgaaagc agcttgga 338

<210> 5330
<211> 296
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-D4

<400> 5330

aagttcaaca actttacaaa caaaaaaaaa cattggcggg gcacgttcaa cctaactttg 60
caacgttacc ctgtaaacat agtatggcga aaaccaaaaca atagtaaaat aaaaacattc 120
caagtcagct aaatacacca attagaacac ttcataagat accaacgcta cccgttttac 180
cccaattccc aattgttttc cgaaaacttg tggtaaaaac cttocttagt gaatgtcctg 240

gaacgaatcg gaaaggcacc gacctttggc ttaatcttca atggcgcaact aagttc 296

<210> 5331

<211> 449

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-D5

<400> 5331

ggtaccaggt caggaattcc cgggccgacc cacgcgtcag cccacgcgtc cggtaaaaga 60

catcatggaa gagcaacttc cccaaggcac gctttctagt gtgggaaaaa gagactacta 120

aaagaactac aagattgggtt ggtgggtgaa cctgtacctg gaatgtccgt ggagagacca 180

gagagattgg acttgtggta tgtcaaagta gttggtgcgc aagatactat atttatggga 240

gaagaatata ttctgcggtt tagttttcca cgagattatc ctatggaagc tcccgaagtg 300

gtttttcttc caccggttcc tagtcaccct catatttata cgaatggaca tatttgtttg 360

aatgttttgt atgatggatg gagtcctgca ttgacagtta cttccgtttg tttgagtata 420

ttgagtatgt tgagtagtgc aacagaaaa 449

<210> 5332

<211> 437

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-062-Q1-E1-E1

<400> 5332

ggtcaagaaa tccgggccga cccacgcgtc cacgcacttt aggaatggta agttatTTTT 60

gtctcgagca ttgacttta tttaggattt tgcatatgga aatactttcg aaaccgatgc 120

gatgggcaat ttactgggg aaataagtca gcctattgtg aatgccagta gaaaggcaga 180

tttactgcaa atgttaacga tgcaagaaag aataagtttg gaacaagtaa ttgcagtagg 240

tgatggaccc gtatcttttag aaatgttgtc tcttgcagga atggcaatat ctgtcgatca 300

gccggaagcc accgatataa aatttggagc acatttatgt ggaaaaagtc tcatgacagt 360

tttatattta ttgggcattc gaggaagaga cgctttggaa atgtcacgag atacttttta 420

ggctcttcca tgcgtct 437

<210> 5333
 <211> 239
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-062-Q1-E1-E12

 <400> 5333

 caggtaccgg actagaattc gcgggccgac ccacgcgtcc acccacgcgt ccgattgggc 60
 aatgtacagg gaagtatgac ccagtaatga ggagtggagt aaacagaaaa ggaagtaaaa 120
 ggaggggaatg aagggaagtt atggcaaaaa cacgtgccag cagcagcggg aaaacgtgtg 180
 tagcaagcgt agagcagaag aactgggtgt aaaggtcgag tagtagagta agtgtaaaa 239

<210> 5334
 <211> 453
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-062-Q1-E1-E7

 <400> 5334

 aggtaccagg tcatgaattc ccgggcccac ccacgcgtca ggtagaggag caagaagaga 60
 agagagaatg ctgggtggag tagcgaaaca agagaaggga agtaaaaggt aagaaagagg 120
 aaaggtttac gagagaagga agtagaaaga agagagtgtg aggcggcgctc ataatagaaa 180
 tccgaaagga gtagaagaaa agagagagaa gaaagaaaag aagagaaaag ccgtactgaa 240
 gaccgacaca ggtactcgag gagaaaggag acccaaatta aggtgagaga atggacgata 300
 aggaactagg caaaaggata tggatatctgc ggtagaacat atgaaagaag cagcaccgac 360
 tgtttagcaa aaacacagca ctctgcagaa aagagaaaat gtaaagtata gagtgtgcgg 420
 cctgccaaat agtagagaag aaatcgatga aag 453

<210> 5335
 <211> 386
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-062-Q1-E1-E9

 <400> 5335

cgccaggtag cggtatctaga attcgcgggc cgacccacgc gtccacccac gcgtccgccc 60
acgcgtccgc ccacgcatcc ggaggcaaact acgggatagc agtagaagaa gagatagaag 120
gagtaaaact gagtatcagg aagatgatag ggagtagatg aggaaagaaa gatcaaagaa 180
gtaagagtaa gagacggagt aatgtgagat gaaagcagga aagtatttga agaagagagt 240
gtaaagcgcg tacctttttgc ataatgtccc agcgagtga agaggaagcc caaacaagaa 300
aaaagatgta gccatgtaag acccgaagct agttgatcat atgcagtcca ggctaaattg 360
gcgctgcacc actatctgtg gcagaa 386

<210> 5336
<211> 376
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-062-Q1-E1-F8
<400> 5336

aggtacaggc caggaattcc cgggccgacc cagcgctcag cccacgcgtc cgcccacgcg 60
tccgcgcctt tttttttttt cgtcgcaata aaaccaagtc gtcagtcagt gcaaaaaaaaa 120
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaagaaa 240
aaaaaaaaaa aaaaaaaaaa aaacagaga agtcagaaga aaaaaaaaaa aaacgaaaaa 300
agaccaaaaa aaaaaaaaaa aaaaaggcaa tgaaaaaaaa acccaacaga gagaaaaggc 360
acagaagaca gaaaaa 376

<210> 5337
<211> 355
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-062-Q1-E1-G6
<400> 5337

gacccacgac gtcagggtag ataaaaccaa aaaagatatg ggaggattct ttccggtgtt 60
gttttctttt gcggttggtg ctggagttgg tgtgtatgtg gcacaaaact atcgcggtcc 120
caacgtgcag tgggtggtgc aacaaccac ggatattgtg aggagaatgg aaagacaagc 180

acgcaagtct caagaggaaa agtagtgaaa gaagaagggtt tttttttggc gccttgagga 240
gaagaaacaa ggctattgct ggggaatgaa tccgtatcca attatctata gatatatata 300
catatatatg tagcacgggtt atttgtgggtt cccaactctt tggaaatcaa catgc 355

<210> 5338
<211> 433
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-062-Q1-E1-H2
<400> 5338

cgggtcggcc cacgcgtcca cccaagcgtc cggaagagtc ctgagagtca agtcatggaa 60
gaacttggtg gtcattctca agaagtttgt ggcttgaaat ggtcttatga tgacaaatat 120
ttggcttctg gagggaaacga taacaagttg ttgatatgga atcccaatca caatttgctg 180
gtttggagtc gattcgatca acatacggca gcagtgaaag ccattgcttg gtcacctcat 240
caaagcggtc ttctttgttc aggtggaggc actgcggatc gatgtattcg gttttggaat 300
gtgacaagta acagtctcta caagacaatc gatacgggat ctcaagtatg caacattgct 360
tggtccaaaa atgtccaaga gtttgtatcg acacacggat attctcagaa tcaaattatt 420
gtatggaagt atc 433

<210> 5339
<211> 205
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-062-Q1-E1-H4
<400> 5339

aaaagtatag ggggggggta tgccgcgtata agagactttc ggtgcccttt caatgggtgc 60
tcctattttc ttttccgggc ccctcttttt aaaacggttg ccgggggaaa actcgggttt 120
taccggtatt accctctttt aacgaaatcc cctttgctcg actgggggtt caccttccat 180
aggcgcgtgt ttttccccct tcgca 205

<210> 5340
<211> 428

<212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-062-Q1-E1-H6

 <400> 5340

 ttccccggggcc gacccacgcg tcagtgcctt ctaggaagca acgcaacgaa attgttccaa 60
 ttagaaccaa agtaaagggt cccgagaatc caaaagataa agcttccaag atgatagaaa 120
 gagaagttgt tgtggataag gacgaaggcg ttcgtttagg agttaccatg tcttcattgg 180
 caaagttaaa accagtcttc agaaaggaag gctccaccac agcaagaaat gcctcgcaaa 240
 taagtgatgg agcagctgct gtcttgctaa tgaaacgttc ggaagcacag aaaagaggac 300
 ttggctgtct ggggtactctt cgagcttttg ctgttggtgg agtggaacca ggtgtcatgg 360
 gaattggtcc tgctgttgct attcccgcat tattgaaaag gacaagattg gctgtgaatg 420
 atattgac 428

<210> 5341
 <211> 445
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-062-Q1-E1-H7

 <400> 5341

 ggtacctagt ctagaattcc cgggcccagc cacgcgtcca cccacgcgtc cggccacgcg 60
 tccggatatt tatgcccaag actctattga tcttttgaca cgctctggta ttgactttga 120
 tgagcacgaa cgacatggca tcgacgtgga acgatttggg gagcttttaa tatcttcggg 180
 cattgtactg aacgaagata tatgttggat ttcgtttcat tctggttatg actttggcta 240
 tttgttgaag atattgactt gtagtgagat gccagcagaa gagtctgaat tctttgaact 300
 tttaaacgct tattttccac gtttttatga catgaaatat ttgatgatgg cttccgacag 360
 gctttatgga ggccataata agttggcaga aatcctggaa gtcgaacgtg ttggccaaat 420
 gcatcaagca ggttcagata gctta 445

<210> 5342
 <211> 398
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-A10

<400> 5342

ggctcgagcc acgcgtacgc ccaagcgtcc gccacgcgt cgcgcgagtt gttgggaaga 60
tatacgggct gttccaaagg aaagggaggt tctatgcatt tgtataaagc ggagaataaa 120
tactttggag gaaatggaat agttggagcg caagttccgt tgggaacagg tttggctttt 180
gcagaacaat atctaaatac tggcaatatt tccgttacta tgtatggaga tgggtgctgcg 240
aagccaagga caagtagcag aggctatgaa tatggcagct ttatggaagt tgccttgtgt 300
ttatgtatgt gaaaataaca agtatggaat gggaacgagc accgatagag cttcagcaaa 360
taccaacttt tatactcgtg gagatgtcat tcctggta 398

<210> 5343

<211> 419

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-A2

<400> 5343

cggtcaggca ttcccgggtg gaccacgcg tccgggatta ggtggttgat tcttgaggca 60
tgtggaacgc tgtcgggtac ttattcacat catcaatgga ggtcgcagg atccattagg 120
agattatgat gctattcgac aagaacttgt tttatttaat ccagcccttg ttgacaagcc 180
ggaagtcatt gttctgaata agatagatct tccacatggt gcgagtcaag ttgtacaact 240
agagacaaag ttgaaagagc gatgtggtca ttgtcgagtg atgtctatta gtgcagtgac 300
tggagaaaat gttcaacagt tattgcacaa aactgctctt ttgttgaata gtttggaag 360
taatttagga agtgtggaac gcgacacat agtcaccaga ccagaagaag agaacctat 419

<210> 5344

<211> 273

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-A4

<400> 5344

acgcgtcagg cagtcgtaga ttaggaacca gcaatcaatt ctaatacttt gatgggtcct 60

tgactattgg caactactat tagttgaggt ctttttggac accaacaac agaactgaca 120
 aaatgtgttg tatctcgagt ttcttctcca gttagtggat tttcactatt cattctaata 180
 aaggaacaac aacaacaaca ataatagaaa aaaaaaaaaa aaaaaaaaaa aaaacaaaaa 240
 aaaaaaaaaa aaaaaaaaaa agaatacaaa aca 273

<210> 5345
 <211> 406
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-A9
 <400> 5345

gtacggtaag gaattaacgg ctcgaccac gcgtacgaaa ctttttccaa atatggagaa 60
 gttgttgatg caagggttgt tgttgaacgt gaaactggtc gttcccgtagg ttttggtttc 120
 gtatcctatg cagaagggtc ctccgtagac gaatgcattg ccgcactgga tggcaaggat 180
 atgcaaggac gcactattcg tgtgaacaag gcaatgtctc gtgaacaacg cgagagtgga 240
 ggagactttc gtcgcggtgg tcgtggtacg atacggaggt tttcgttccg gtccttatga 300
 gagacgtgaa cgtgactctg atcgtagaag agatcatgac aggagagata acggccatag 360
 tagcccaggt cgcagtggac gtttccgccc tcgtgaagac tttgat 406

<210> 5346
 <211> 384
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-B11
 <400> 5346

gggtcgaggc acgcgtcagc ccaagcgtcc gccacgcgt ccgcccacgc gtccgcccac 60
 gcgtccgctt ggcgcgccct tactctctct ctctctctac gactacacca gcccaacctt 120
 gctattcacg attagataga aaagacaaaa ttgatcaac aatagaagtt tcaatggaag 180
 gagtttcttg ttgtaaagac ttgctttcca agtttctctg tttctcgcc tgttccaact 240
 ggcgaaactgg caggtatttt gctaaataat gaggcttggt gcaaagattg gaaactacaa 300
 gatagatgaa aaaaactctc cgacagtcgg gataataata aacttcgaag agaaggacac 360

tggtatacgg ttccttccaa aata

384

<210> 5347

<211> 401

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-B2

<400> 5347

acgcgtcagc gaatgtctcc ctatacctgt tgttgcacga ttgggttact atagattgca 60
atatcacact gtgcaagcgc tttatgaatt gcatgttttt tgagatcaca caaacacttg 120
tacactgaat gaacgacgta tgggtactaa ctgtgcattt tgtatagata tcaaggatgt 180
caaatatgtt atcaactacg atttcccgaa tactatagaa gactatgttc atcgatttgg 240
tcgcactggg cgtgctgggt cccttggaag gtcccatagc tttttcactc cggataaatt 300
ccgtgttgcg aaagaattag ttaacttggt gcgagatgct ggacaggaca ttcctcccg 360
gttggctcgt ttgataaaaa ctctgtcctt tggccgtaac a 401

<210> 5348

<211> 373

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-063-Q1-E1-B8

<400> 5348

aagctcttcc ttatattctt tgtgcttggc caatgggtgc aaagactgct ctgagttgcc 60
tctttctctc tttccttatc gctgccgcag ttgcagccga cgtagtttca gaggagagat 120
ggggatatgc tcagcaaacc caacaacagc aacagtgcga acaagtatgt aaacagtatg 180
catactatca gagtccagtc tgcacttccg taaccacaca gagcccatatc tggacccaat 240
gctcgaagac tgtgcaaacc tttgtcccaa gccagtgcag tacttatacc caatctccta 300
catggaccta ttgcagcacc tacaccacca ctacggtacc atctcaatgc agcaaggccg 360
tgactaccta tac 373

<210> 5349

<211> 399

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-B9
 <400> 5349
 gggctcgagcc acgcgtcagc ccaagcgtcc gcggacgcgt ggggtggattt ccagacactc 60
 tttgcagttg ctaggctgac agaaaaccac ggaataggtg agaaattcta tttagacaga 120
 tggagacgca aaggagactt tgactottat tggaccgtta cgagaattca aagagataac 180
 aagggagatc cttccaagtt ctttggttac tatcactaca aggggtactga cttgaaagga 240
 gaaagaaaaa tcgaactcgc caattgtaaa ggttggaggt gcgacacact tgaaaaggag 300
 cgcaccaaatt tgtttggtaa aacaccgaca gttccttagt tggagagttt aaaaaaaaaa 360
 aaacaaccac ccaaaccaca aaaaaaaaaa aagggcggg 399

<210> 5350
 <211> 347
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-C1
 <400> 5350
 ccgggtcgac tcacgcgtca gccaacgcgt ccgcggacgc gtgggccgac gcgtgcggga 60
 aatatttgag gctgttgaag ttccacagag gaatgggcgc acaggatgac ctgccacaag 120
 tttcaagctg tgtcgaagcc tgtacggaaa tggcaaaatt ttttaacatc cgtcgggaga 180
 gcgttcagtt ttgttcagag tgacatcttg agcaaggcca acattgtgga cagttaaggc 240
 gagacatttc gtccatagaa aggtctcttg cagcacatca gataaaccgg actggctaac 300
 ggaacttgct ctgtaaaatc accaccttct tgttccccga actgtgt 347

<210> 5351
 <211> 418
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-C10
 <400> 5351
 ggtcaggaac taccgggtcg agccacgcgt ccgcccaagc gtccgccac gcgtccgcc 60

acgcgtccgc ccacgcgtcc gccacgcgt ccggtcttat tgggggaggc actgtatttc 120
 tgtctaccat tccagccata tactttatgg atcgtttagg aagacgtcca gtgctattaa 180
 cgcttattcc tggagtatcc gttggtctat tcattattgg gttttctttt aaagcaacca 240
 atgtgaaggt tgagtgaagg gatatacatt tggggagtag tggctctatga attcttctgg 300
 ggttcttggt taggtcctac tccttgggtg gtggcctcag aagtatatcc tacttatttg 360
 agaagcactg gtgtaggat caatgcattc gttgcctatt tgggaacgtt taccacta 418

<210> 5352
 <211> 400
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-C12

<400> 5352
 gtcaggaatt accggtcga gccacgcgtc cgccaagcg tccgccacg cgtccgcca 60
 cgcgtccgcg ctacaagaat gggacgattc ttaggcaaat ccctatcaa ctttctttcc 120
 taataacaaa gtctgcaatg cttcccaagg aatacagcag tactaaccaa gtccacaagc 180
 atagaaggaa ctgcaaaaaa ataaacaatg tccacgtccg atagatctgc agaaaatagc 240
 gatcgatgat agacttttta caaggaaga cagtccttta caaataaatg acactttgga 300
 acaaaaaaaaa aacacaaaaa agagacaaac gatgaaactg gcgcaaaaaa acaccaaaac 360
 aaaggtacga aaactctaaa cacagaaaac aaaaggggagc 400

<210> 5353
 <211> 424
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-C5

<400> 5353
 ggtacaggta aggaattccc ggctcgaccc acgcgtacgc ccacgcgtcc ggatcaatca 60
 tgtccttcgc tattcctgct gttgtttcta ccggagcagg gctatctttt ggtgtagctg 120
 cttcaattgc aaaggcttgg tctgacctgg atcatttatg tagtggcagg gatagagcgc 180
 tcttgagttt gccccaagtt ttcaaaagtt ccaaggacaa gggcaatctt ctcgctcgtc 240

aaggacaagg ttctattgaa gccccaggta aagctgagag aattgcaaga caaagagcag 300
gaggtatccg tagtgctgaa gatgacgtcg taccagagga acccaacttt ctagcaaagg 360
ttcccaaacy ggagcgagat gggagagcag cttttcgtcc ttcaaagaag tcaaaccgct 420
ttct 424

<210> 5354
<211> 416
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-063-Q1-E1-C7
<400> 5354

ggtacaggta aggaattccc ggctcgaccc acgcgtacgc aaggattctc ttcacgacac 60
agaatggata cttttttaat atttgactcc accagtcaac gattcgggtgt cgctgctgaa 120
cacgtttatg acgtaaacga gaataccaag ttgcgttttg gtgggaaagt tcgtcacgga 180
gaatcggacc cggcaggata tgtcattgcc gaatatgact ttacggtttc caaagaagat 240
tttccgataa acgttcgtgc acgtgcgata tgtaaaagta accagtgcac cggcgatatt 300
cgtgccaaaa agaagtttga agtggacgaa gacacttctt tattcttctt ggccaaagct 360
tgtactcagg aactaacaaa aggaagttat attattggta aagctggagt gacacg 416

<210> 5355
<211> 431
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-063-Q1-E1-C8
<400> 5355

ggtaccaggt taggaattcc cggctcgacc cacgcgtacg ggctcatgag attgtccaag 60
cactccaagt ttctccccag ttgcgttctc aagcagtcga tcaagtacgc aagttgtatc 120
agtttttcga tgaaagagac gtgacaatgt tggaaatcaa tcctttggta gaaaccaagg 180
acaatcgttt ggtttggtg gatacaaaaa taagtttcga taagaatgcc gagtttcgac 240
aatccgatat atttgcaatg agagatacca cacaagagga tcctcgagaa gtaagagcag 300
atcaagttgg attgaattat atcggattgg atggaaatat tggatgctta gtgaatggag 360

caggattggc aatggcaacg atggatgtca tcaagttgca cggaggtaat cctgccaaact 420
 ttttggatgt c 431

<210> 5356
 <211> 424
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-D8
 <400> 5356

ggtacagggtt aggaattccc ggctcgaccc acgcgtacgc ggacgcgtgg gctcgagcaa 60
 tgaatggaag agctttgttt cctgaaacag ctcgccagta taaaaatagt gaagcccact 120
 ctacagtttc actctcagac cgttcaacct cgaacactcc cgctcgcttct ggtgatagca 180
 actccaaatt gctatcaaatt gcaagtttgg aaagacaaga agaagatagg gttcctcctt 240
 taattgactt tagtgacttg gttctggaga attccgttgc tgagtcagaa gaaccctcat 300
 gtcccgtctc acctccacaa aaatcactta cagtggagga ggccttgaac tttccaccta 360
 tgcctacgag cttttcggac ctacacctta aaagtgtctt gggactaaca aatatgctgg 420
 aaag 424

<210> 5357
 <211> 284
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-E10
 <400> 5357

gggtcgaggc acgcgtacga agaacaggaa tctacgaata atgttcaagt tgggtggttcc 60
 atgaatgcga gtgacttgtc acaaagtatt gtcaactcca ttggttcacg aagaagagaa 120
 gatagagaat ccgacgcgac cccttctgca agtggtttcct tagataatgg aaactcgggtt 180
 tcgaaagata tgaaagatat gggaaataaa gaggtccatc gagatttttc caaaaaaaaa 240
 aataaaaaaaaa aagtaaaaaa aaaaagaaga aaaaaaaga aaaa 284

<210> 5358
 <211> 383

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-E12
 <400> 5358
 acgcgtacgg ccaatgcgaa gtctgcctgg atctcactac acgaaaagac agggttacct 60
 tgggtgggcga ctctgggttac tgggtgcgttt gttattcgag ccgcaacctt tcctctctgt 120
 tggtatggac agtaccacgc tgataagttg agttcgttgg ctccagaact aaaccgggtc 180
 agatcatatg ttagccgctc acctggaact tctctccaaa agatcagaac ttgattcgtc 240
 gtctgcgaca ggaactgctg aagagaagtg attcttcac tttgaaagtg attccttatg 300
 ggaagttagc tcacgtaccg ctttttgtaa ccgcggcagc ttcagttaga acgctaactt 360
 ttcaaaaata cccgggtttt gag 383

<210> 5359
 <211> 382
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-E5
 <400> 5359
 ggtactagta aggaatgcc ggctcgaccc acacgtccgc ccacgcgtcc gggtgtggag 60
 aatgccttta gtgaatgaat atttggagtc tttgaagagt aagattgccg acttgagaaa 120
 tgttggtgga agggctggtg gctccattgc tgcggccttg tttttaagag aattcgtgaa 180
 gcagtctcct tgggcgcata tagatattgc aggaactgta tggaatgaga agcagtcggc 240
 agctacagga tttggtgttc gtacttttgt agaaatttgt gaaagttttt ctcacgaaca 300
 ataaaaagac acaagcgagg cgccctacat gtgttttttg tttctgcgcg ccaaattttt 360
 gaaaaaaaac aattaacatt cg 382

<210> 5360
 <211> 383
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-E6
 <400> 5360

aattcccggc tcgaccaca cgtacgccc cgcgtccgc cagcgtccg gtggagacaa 60
caagaagaac gtgaagctgt ggaggctacg agacatatga ggcaacgact gaaaaagtct 120
gtactaaaag atgagccacc tgagaacagt cctcacgtaa cggagttgct attaaggcta 180
ccggatggac gaaaagttgt gaggaggttt caagacagt accaactaca agtcgttgta 240
catttcgtgg tttatgaaac gggactatcg gaagatgagt ttcaattgat tgttccctat 300
ccccgaaagg gtttaaccaa catggaggct acactcgag accatagcct tattaccaag 360
gctgcgttga taatacaacg taa 383

<210> 5361
<211> 424
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-063-Q1-E1-E7
<400> 5361

ggtagcagtc aggaattccc ggctcgacc acgcgtacgc ggacgcgtgg gcggacgcgt. 60
gggcctgacg gtatgatggg aacctattcc gtattgcctt ctctaaagt atcggatact 120
gttgtggagc cttacaactg catcctttcc gttcatcagc tgggtgaaaa tggagatgaa 180
gtgttctgca tagacaatga ggactctat aatatttgcc acaatacgtt aaagatgaat 240
aatccatctt acagtgacct caatcaactc gtcaccgcag taatgtcagg tattacttgc 300
tcacttcgct tcccaggta gttgaatgca gacttgagaa aacttgcaac caatttgatt 360
ccattccccc gccttcattt cttcatgatt ggatttgctc ctcttgacgc tccaggaact 420
caac 424

<210> 5362
<211> 195
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-063-Q1-E1-E8
<400> 5362

cgacccacgc gtacgcccac gcgtccgcc acgcgtccgc ggacgcgtgg gcggacgcgt 60
gggtgggttc ttgtggcgtg tgtgggtgac gttgttagtg acgaccgtgt cagagacgac 120

gtgtccgtgc atcattcgac tagttgccat acggcgagta tgctgtccag gacatatcgg 180
 atagagttgc atgtt 195

<210> 5363
 <211> 386
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-F10
 <400> 5363

cgcgtcagcc caagcggtccg taagaatgta attggagccc gaagagcgtc ttggaggatt 60
 atttcttcga ttgagcagaa ggaagagtca aagggcaatc aaaccacgt gttgatcaat 120
 agagaatatc ggaagaaaat agagaacgag ttgagctcta tttgtaaaga tattctttcc 180
 atattggagg ataatttgat tccttcccc aagtctggtg aaagcaaagt ggttttacct 240
 taaaatgaag ggcgactatt atcgttatct cgcagagttt acgaatcagg aagatcgga 300
 agcatcggct gaagcatctc tggaagctta caaggcagca agtgagatag cttccaccga 360
 attggtcca acgcacccca tccgac 386

<210> 5364
 <211> 420
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-F5
 <400> 5364

ggtacaggtc aggaattccc ggctcgaccc acgcgtacga tgattatggg taagtcacg 60
 tcttcgatgg taggacgtaa aaaggagagt cgacaagaac aatcgaattc ttttttgttt 120
 cgaaaccaac tggatcgcaa gcaacgtaaa caacaattgg cagaaatgct acgtaaacaa 180
 atggaacaac taagtatgcy tttgcggtca aaacagcaac cacaagaaga agaagaagaa 240
 gaagaaagca attgcagcaa cagcgcttct tgaagaattt tcttggtgcy ttggacgttt 300
 gtccaaatgg cctttttgag tgaagttttg ttacgaacaa gaatagcacc gagttggcag 360
 agaaaaagat attgtttctc ctgctgttca catcataaag ccaaacggta tacgtttcat 420

<210> 5365
 <211> 262
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-063-Q1-E1-F6

 <400> 5365

 acggtgaact ctgggcaggt aactgcgagt gcacgggtgg acctcatagt tggcagtagt 60
 tgcacagagt atgagctata cagacatgag gatgtggaac acacatgctg agatcaatgg 120
 caataactgt ggaacatcct cgttccatat ggtatacaca tgaaccttcg atgattccac 180
 acttgcgacg ttgtggttgt gcatgtatat ggacgattta cggctcgttg tggttgtcag 240
 tcatcaaaga cctgagtcgc ta 262

<210> 5366
 <211> 412
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-063-Q1-E1-G2

 <400> 5366

 cccggctcga cccacgcgta cgggcagaga taacctcga agaaggactc cctcacgaga 60
 ctgtgacatc ttcacaagag acaaaagatg aaggcccga aacaaagcca aaccgctttg 120
 caattactgg ccacacagag gaggaatgg atacagagct aagcaagctt gatgacgaga 180
 acaaccggct gcacaagaaa agattactta cttccacggt ctttggtaac cctaaacatt 240
 ttatatgggt ccttgcatcg tttgcgagca tgggaggaat tctgtatggg attgaccagt 300
 ctttgataag tggtgctggg atttatatgc cagttgacct acacattgac cagaatagag 360
 aagacatggg tactggatth atgccaccg gtggagtatt tggggcttta at 412

<210> 5367
 <211> 386
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-063-Q1-E1-G8

 <400> 5367

 ggtactagtc aggaagcccg gctcgacca cacgtacgag acggaaaacg atgttcagaa 60

taccttatat agtctatttc aaagaatgga tcaattggaa caagaaaact cgcggttgcg 120
gaacaatctg agtcatttag tctctacgat tccaacccg aaaagtatcc ggtaacgaga 180
tgacaggagt gaaaggggtg tgtgtatcgc caaaaaaagt gtaaatgatt ccacaacact 240
ggacactttg aatggttcct atctaccaag tagatatctg aatatcatgg atgtttcaaa 300
tggaataga agtgtgtgta actttgtgtt tttgaacaca aagatatcaa ctgtggcaac 360
taaaagtatt ttcgttattt ctgtac 386

<210> 5368
<211> 125
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-063-Q1-E1-G9
<400> 5368

ccacgcgtcc gccacgcgt cggactagt tcttcaatgc ctgcggagct tttttgggaa 60
aaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaggcgga 120
cgaac 125

<210> 5369
<211> 351
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-063-Q1-E1-H3
<400> 5369

gggctcctac catgaaatgg gctttggtgg ttgcaggcct gtccgatatg aagcgcccc 60
ctgagaaaact ttccgtacct caaaacctag ctttggttg tactggagtt atctgggttc 120
gatatagttt tgtaataaca ccagtaaact ataacttggc actggtcaat acctttgttg 180
gtgctaccgg tatttatcag atttggagaa aagtgaacca cacctatttc caacaaaaac 240
aagtttctgc taattgattc gctatgagac gtgatggagt gagatatga acaacttttg 300
gtgtgtgaaa tccagtgaat atgaaagagt tgggtgtttt tccacaataa a 351

<210> 5370
<211> 293

<212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-063-Q1-E1-H4

 <400> 5370

 aaccgacccc tggggaacgg aaaacgcaag caattattag aaacaagcaa cgccggggcaa 60
 cgaataattt gcccctaaca actaagaagg aaatcactac aaccaacgaa aattccttct 120
 cccctccta tccaatactt aatattcgta cattacaatt tgcaccatca acgtcntttt 180
 ctacgaccgg atgacctaaa acaaggcggt ctacttcac caccctctct ttggaaccga 240
 taaataaagg aacacacatt tccaacgacc tagtcacaca cacacaanan ana 293

<210> 5371
 <211> 421
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-063-Q1-E1-H5

 <400> 5371

 ggtactagtc aggaattccc ggctcgaccc acgagtcggg ttttgtgtgg ttggctcctg 60
 ttcttcattg gaaagatata ttctattaga tactattctt tatgttggtta ttggctggt 120
 tgggttgctg tccatccatt ttgcctagac acctgtgtta tcgttgctct cctcgaataa 180
 agagcaacgt tggttggtcgt ttcaagaaac gccatcctat ttcaccattt ccagcgatga 240
 ctttatggca aaactggact tggctcgtgg ttccagtagc atctccttat actcctatat 300
 attccgtggt atttccgtta tccacgatac cttatgtttt atttctcagg ggtttgtgga 360
 aaaaaaagtc agttcctgta gtagcaaaaa taagggtttt ttatttgcct gttttcgtgc 420
 t 421

<210> 5372
 <211> 364
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-063-Q1-E1-H6

 <400> 5372

ctcttaacta cggtagaggt attgggggtt tggtgaaagt attgccaaag ggaaagagtc 60
 acttacgttc atgggtacac gtaaagctcg tgatgggggc ttgccttttg caacctctcc 120
 aaagaacctg ggagtatcac ttccaacaaa tatggagcga aatggaaagc gacaggaaac 180
 tgtgtttcgg tctgcgaata gaaacgaaca gaaaacggaa agcgtcaaga aggaaagtac 240
 ccctctagct gctatgtttg gtgatgactc ttcggaaaca gttgaggaaa catctgtggg 300
 aaatgggctc aatagaactg ctaaagaacg aaaatctgga gattcttctt ggtttgggga 360
 taac 364

<210> 5373
 <211> 436
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-063-Q1-E1-H7
 <400> 5373

ggtactagtc aggaattccc ggctcgaccc acgagtcagc cgagcagctg ctctcagag 60
 atggtatgag gaacaatgca cctcatactg ctgggttcca gtacagacct atgaaactta 120
 tcaatgttct caagagaaga agaaggagta cagctatcct tgtcaaactt atgagcaggt 180
 ttcaactact taccagtgtg gtcagtacga gtcccaacaa gtttactacc aatgccaaaa 240
 gtataaggag gttactcagc aagaatgcc a gtacgtccaa gagtcgtatt gtgtcgagta 300
 tgaagaatgt cagcaagta cccaggaagt ttctccttca gaaattgtct actacgggtga 360
 atcttcttct agcagtagtt actactacta gaacacttgt gaaatgcgca aagtcgcaaa 420
 gtaaagtgtt cctttt 436

<210> 5374
 <211> 388
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-064-Q1-E1-A10
 <400> 5374

attccggctc gaccacgcg taagccacgc gtccgatttg catctttttg gactttggat 60
 ttgcacgtgt ggggtgtgctc agtcagaact gcttctcagt tagttacgca atatgcctag 120

tcataaggaa caaaataaag gaattaaaat atcagctgac ggttacgcac taaagttgag 180
 cggatttcgg ttggacgtag acggcagttt ggtcactatg gtggacgcag acgacctcag 240
 aagccctcat gttaaaggaa agcctcaagg aaaagtcaaa gctgcatgac ccaaaatttt 300
 tcaaaagcta ttatgaggag aataaggact acttttatta tatgactcat acggagaaga 360
 aaatgtttct ttctctggaa gttgcacg 388

<210> 5375
 <211> 349
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-064-Q1-E1-A11
 <400> 5375

ctcgaccac gcgtacggga caaggaaaac aatccattaa agaatgctcc acatactgca 60
 gatgtggtat catcgataa ttggagtcgt ccctattctc gtcagttggc agcatatcct 120
 gcagaatggt ctctgtcatt caaattctgg cctagtgtaa gtagaataga cgatgcttac 180
 ggtgataaga atttggtttg tacctgtcct cctatggaaa gttatatgga agcagaacaa 240
 gcgagtggtc tgaacttggt ggaaaacgaa taaacaaaca gggattttcg atgtctattg 300
 gactggaaaa aaatgacaat gaaagagaaa aaactggtac aagaacaac 349

<210> 5376
 <211> 428
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-064-Q1-E1-A12
 <400> 5376

gtaacggtaa ggaatctccg gctcgacca cgcgtaagcc cacgcgtccg gttcgaagga 60
 cgatgcgaaa ttccggaaat ttggcagctg tctatttgca tcccgaagtt attattgcct 120
 gtttggtggt ttatcgcta tctactcttt tattagctat gattgcgttt ttgagagggt 180
 ttcatgacgt caagaatact gcagttcctg gaactattac ggcaggaatt ggtccacata 240
 ttgcgagtac ggcactcgat tgcttttccg tttttgtcca agagaagcgc gagtcaagtc 300
 gtgtcgctg gccactggtg tcttgatatc tgttgatag aaaaacttta caattcttcc 360

gttgtagtag tggtagagaa attttggtat tgattgcata tagttgaaag attcgtatat 420
gtgtgtat 428

<210> 5377
<211> 298
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-064-Q1-E1-B10
<400> 5377

attccggctc gaccacgcg taaggtggga gtattggctg atgacgtgga ccctatggta 60
tccgtaatga aagtcgataa ggctccattg gaaagttatg cagatattgg agggttggag 120
aaacaaatac aagaaattaa agaatgcagt agaacttcca ttgacacatc ccgaactata 180
tgaagatata ggaataaacc ctcaaggagg tgatcatatta tatggagaaa catgtactgg 240
aaaagacctt attggccaga gcagtggcaa atagcacatc cgctactttt cctcgtgt 298

<210> 5378
<211> 435
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-064-Q1-E1-B11
<400> 5378

aattcccggc tcgaccacg cgtacggaga aaaaggtaag aaagaggacc gaatcagggt 60
aagaggtaga ggagcaagaa gagaagagag aatgctgggt ggagtagcga aacaagagaa 120
gggaagtaaa aggtaagaaa gaggaagggt ttacgagaga aggaagtaga aagaagagag 180
tgtaaggcgg cgtcataata gaaatccgaa aggagtagaa gaaaagagag agaagaaaga 240
aaagaagagt aaaagccgta ctgaagaccg acacaagaac atgaggaaga aagaggcaaa 300
tacgggaaag cagtaaaaga agaaagagaa agaaaaaac tgagtatcag gaagaaaga 360
gggagtagat gaggaagaa agatcaagga agtaagagta agagaaagag taatgtgaat 420
gaaagcagga aagta 435

<210> 5379
<211> 220
<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-B12

<400> 5379

gtcgaaaaac aacatttatt gtggtccatg aaagcagaaa ctttgtctgt tctcaggcca 60
aaaggcaaac tatcatacta tcttaaccct catacgaata ataatatgga gttggacaaa 120
tcgagcatat actcttacac atttgggtat aggtacaata aggcgtttgg tgtcgggggt 180
ggggatggag tctcataata gtaataatat gtcggagtct 220

<210> 5380

<211> 430

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-B5

<400> 5380

aattcccggc tcgaccacg cgtacggtg acctctgctt accatctttt tttgggtgtc 60
tttcgtgtgt tttgccttgt caaagcttga agaccattta tttgctgcta tgttttagag 120
ggttcgtcag agagttttgt actagtagta ttccatgctt cgtgggtggtt gattggctct 180
ttttacaaca gggttgtcaa tttactgcca atctccacag catcaactgc ctacttgggt 240
ccgcatgtat acatatattt gtacagattc gtggtagaca gaagagtgca gatggttcag 300
aagtgcacgc agacggttag tatacctgta gaggaagcac ttgaaaagg gtcacgcccg 360
ttgtaaagtt ctacctgtaa gtagttgttt ttgctttag agaatgcaag tttagtgtac 420
ccgacaatat 430

<210> 5381

<211> 401

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-B9

<400> 5381

aattcccggc tcgaccacg cgtacgcca cgcgtccgc cgcggtccg cccacgcgtc 60
cgcccacgcg tccgcccacg cgtccgcagg aaaagaagaa agagaaagga aaaaactgag 120

tatcaggaag aaaagagggga gtagatgagg aaagaaagat caaggaagta agagtaagag 180
aaggagtaat gtgaatgaaa gcacgaaagt atttgaagaa gagagtgtaa agcgcgtagc 240
ttttgcataa atgtcccagc gagtgaaga ggaagcaaaa agaaagaaaa agaagtagcc 300
aggtaaagacc cgaagctagt tgatcttatg ctgtccaagc gaagtaaggc tgaaccagta 360
tctgtggaag aagatttgga agagatggca taaagggtag a 401

<210> 5382
<211> 368
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-064-Q1-E1-C10
<400> 5382

gaattcccg ctcgaccac gcgtacggta ctagttgcgg ttgacgtggg gtagtgggta 60
accaagagtc cttgggacac aaactatgtc cacaacttca taagtttgta aagtttgagt 120
acttgcaatg agctatctag taggaaatac cgaacaagac ttacaagcca agaaaccaac 180
atatgaagaa ctggtggccg aactatctca actcaaggcg gatttattcg cagaaagaca 240
caataagaaa ggtagttgaa caagagttga aagagttgaa acagttgtcg ttttctatgc 300
aaactcatat cgaggcagaa gaggagtata ttgccataa actcaataaa ccgctcacag 360
agttgaaa 368

<210> 5383
<211> 413
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-064-Q1-E1-C11
<400> 5383

aattcncggc ctcgaccac gcgtaaggaa catttgatg actttcgttt ggaagctatc 60
ttgggagcac tattgtgtac ttgttattgt gagtggaagc gttttgaagg agaattgggg 120
gtacaagaat ggaatgaatt ggagaagata tcttccttag atacttgga gcttgtgctt 180
ggtacaagac aaagagtgga taatatgtta cagcgagtac acaagctgac gagcatcttg 240
tcctttttat actcgggcga acaaccgaga gtggactata tcgttgctga ggatgaagca 300

agttgggaaa agttgtggag aggaaaacgc gaggtcattg gatatacttt ggaagcagct 360
 ttacagaaaa cttgtattgt ggaaaaccag ttgagggagt ggaaaaagaa act 413

<210> 5384
 <211> 346
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-064-Q1-E1-C2
 <400> 5384

gggtcgagcc acgcgtccga gcacaactgg cggttcacga atgtttcgct caaggagtag 60
 tccagatatt tatcgatggc gtcctgtatc tgttactcat tcagctgacc acaaagatgg 120
 ccttaaggat tctttgataa ccaatcaaatt ctttcgaatt tcagaaactt atcgtaacaa 180
 ggacgacatg ctgaaagttg aagttacacc ccacactggc ctaccagggtg gaaagcaagg 240
 acctcgtgcc tctccttggt cagctatgga gaatgtgatg aacaataata atgactggac 300
 ttgttctgct gggaatgctt cattcgagag gcagagtgtc tagttg 346

<210> 5385
 <211> 447
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-064-Q1-E1-C5
 <400> 5385

attcccggct cgaccaagc gtccgaaaca actcgggata acgagagata gaatggacat 60
 tcttgctgct cgtgaagaaa tactgttgca gcaagtacaa gaaagattcc agagattaca 120
 aagttacacg actcaagtat ccgcatatta tgaaaagcta aaatttccaa tggaagagta 180
 tgaggagttt gcttctcaac actcaaattc ctctctttcc tgcttgcatg cttgggaacg 240
 ggaacttggt cgtttagaac aacttgaaaa ggacagacta caacagctct tggatgagag 300
 caaacaaaag ttgcatgcct tgtggaatga acttcaaatt cctgtttcag aacgcttgca 360
 ttggcaagaa acccttgatg aggaacattt gtctacagga agacttgata ggaagacatg 420
 accaagacat cagtagactg gaatcct 447

<210> 5386
 <211> 357
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-064-Q1-E1-C6

 <400> 5386

 aattcccggg cgcacccacg cgtcaggtgg tgggtgggga gacgcgtttc aatctcccac 60
 gagcctttct acaattgtct ttgttgggt gtttaatatg ttgggtttcg tgcacctcgt 120
 gagtccaaac aagatatctt caaaaggag ctttgaaca tgccctgttc tatccaagaa 180
 acgagtatcc ccgtctaaga gagcaactat tgtggcttct tcttttgga tgaacgggtc 240
 caaaatggga tctctgggag gtgtcaagta caaaacgct ggcgtagcaa acgatggctg 300
 ttgtttcaaa ataacctatt gtcaaccaag tcagtcgaga gggtacagcg ggaagga 357

<210> 5387
 <211> 386
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-064-Q1-E1-C9

 <400> 5387

 aattcccggc tgcacccacg cgtacgaccc gctgaactta cgcatatcat taagcggagg 60
 aaaagaaatc cggcaaagaa cagaaaaagg taagaaagag gaccgaatca gggtaagagg 120
 tagaggagca ggaagagaag agagaatgct ggggtggagta gcgaaacaag agaagggaag 180
 taaaaggtaa gaaagaggaa aggtttacga gagaatgaag tccaaagaag agagtgtgaag 240
 gcggcgtcaa taatagacat ccgaatggag tagaagaaaa gagagacaag aaagaataga 300
 agagaaaagc cgtactgaag accgacacag gtactcgagg agaaaggaga cccaaattaa 360
 ggtgagagaa tggacgataa ggaact 386

<210> 5388
 <211> 407
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-064-Q1-E1-D10

 <400> 5388

attccccggcc tcgacccacg cgtaagccca cgcgtccgat catttttgtt cccggcaaag 60
agcaacttca atatggatgc aatgtgttga atttaggcaa caaaaatatt gtcgcggtac 120
acccgacaac tgcccgtaga attgccaaagg cgccttgttt cgatggaaat gtagaatata 180
tcaatatgtc tgcaatcact gcgatgtatg gagcagcaca ttgtgcatct caagtcgtct 240
atctgacaac atgtccacga tattctcact gacgacgacg acgacgaagc aaagtgggtt 300
cgatggcaaa acgagatatg cggttcacct aggagaagac aacaagtgcc tactgctttg 360
gaaaatggat gtactggttg ttgtcgccat catcgcaacc attagta 407

<210> 5389
<211> 410
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-064-Q1-E1-D12
<400> 5389

gaattccccg ctcgacccac gcgtaagaga aaggaagaca cagtaaatga ggcgagaaaag 60
cataggaagt gaaacggatt aggaaccggt gtagtctatg cagtaaaaga aagaatgagt 120
aagaaaaaag ggagtcattc caccagggga gtaaaggcgc aagaaagaaa cccaagcaa 180
ttgacgggaa tcggaaaaaag ggggtggatca cgtaaattaa tccgatataa accgagaacc 240
ttaccctctc caagaagggtg ttgcacggct gtcgaaagaa cgtgctgtga agtgagagaa 300
cgtacgagaa agccaagtga ggaaaagaag gcaagtagag ggcggccccga gaaaggagag 360
ggcgtaagac gtgatacaga gtaagaacat gaggaagaaa gaggcaaata 410

<210> 5390
<211> 411
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-064-Q1-E1-E10
<400> 5390

attccccggct cgacccacgc gtaagcacga aatggacgct tagtgacgat aaaagacttg 60
tttgtagtgt cggtttgtac aatgaaaact ggcctcttat cgcaagagtt cttaaattatt 120
ggctcttattc agaatgtgag aggcgttatc gaacgttgca acgggaaaat aggctgcttc 180

ctttagaaag aacggtaatg aaggaagttc gcaaaggaaa atcaagcgaa ttgctatctt 240
ccatgtacta ttcgtcacga tgaatatgga ttggcaagag agcgatgttc atcggcttta 300
caagaagtat tttttggtta ataactgtgt acatacagaa gatgacgagt attcgcaagt 360
gcagcaagta atctgatatc cttagtagtt gtagttggga gtgacacttt t 411

<210> 5391
<211> 355
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-064-Q1-E1-E6
<400> 5391

gaggtcccg ctcgaccac gcgtacggag agagagggga tgagtacccc agccagacga 60
agattgataa gagactttaa gaaactacaa caagtaggtt atttcttttt ttctacgttt 120
ctaatagcag aactgttttt gtgttggtca tacgaccctc ctagtggttg tagtggtgct 180
ccttgtaga atgatattat gcgttggaaat gcagtcaccc tatgcccaga agatagtatc 240
tggaaggtg gcacgtttaa actaactttt cagttcaccc aggactaccg taggaaaccg 300
cctacggtca agtttggtgc caaatgtac catccaata ttactcggga tggaa 355

<210> 5392
<211> 400
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-064-Q1-E1-E9
<400> 5392

gaccacgcg taagcccacg cgtccggaga agcgtatatc agaaagtcag aaacaggaag 60
gtcaagcaga tgatacaaag gcggcattgg atgacgagaa agaaattctg aaggaaatag 120
aactagagat agccgatttt gattctgtga tatcaaacca agagaaggag aacagtgatg 180
gcatgaaagg tgatccagta acgcaagtga cagggtgga acctcgaaaa cgagccagac 240
acaaaaatag aactctccaa ggaacaggaa accgctttac atgaaacgtt tgatgacgca 300
aaccatgaaa tggttcctaa caagaagagc aggacctgca aagtgaatga agaccatcct 360
tctacgcaac agtaaccact taaagagaac ttacgatac 400

<210> 5393
 <211> 391
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-F12

<400> 5393

tcccggtctg acccacgcgt acgagagaga gaagaaagaa aagaagagaa aagccgtact 60
 gaagaccgac acaggtactc gaggagaaag gagacccaaa ttaaggtgag agaatggacg 120
 ataaggaact aggcaaaagg atatggtatc tgcggtagaa catatgaaag aagcagcacc 180
 gactgttttag caaaaacaca gcactctgca gaaaagagaa aatgtaaagt atagagtgtg 240
 cggctctgcc aaatagtaga gaagaaatcg atgaaagtga aagcgagtaa aagatgaggt 300
 atagagaatg gcggtcctaa cagtaaggat ccaaaggtag cgaagtaa atagcgtttga 360
 aaggcggtcca gtatgaaagg agaaacgagt g 391

<210> 5394
 <211> 409
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-F9

<400> 5394

gaccacgcg taagatggaa aatgggtatt gtagaggagt ttgctgaagc atggttgaat 60
 actagtgtac atagaagaag aaggaagcag ctacttgtga cgctcgacaac cgaacttctt 120
 tatattctcc ttccacctgc ggaaataaac aaacaagaaa cttctgttcg aaggggaact 180
 ttaagtgtag agaaaccaca gataattgtc ccgggacaca aacaaaatat tgcaaaat 240
 tacgaaactt gatgatgagc ggtttgagga tatacgtaat tctctgatat tagctcgttt 300
 tgtaaagttt ccactctggca gatatcgga cgttcttac cagttggaca ttgtggatag 360
 cccagtagaa gcacttgctg agaagtggaa cgaacagttg ggaaaagaa 409

<210> 5395
 <211> 213
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-G11

<400> 5395

gacccaagcg tccgccttta gaatgttata cagagcttca attgccgcat aactttttgc 60
accacaagca aaacacaagt cgcgctcttt ttttggaat accctttgga agggaaaccaa 120
ttcctgggtcc gaatccgttt cctgggtcca acaatcctgg cttttcaagt tgcaaggcgt 180
tgcttgggtcc ttgaaaattg tggattccgg ttt 213

<210> 5396

<211> 347

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-G2

<400> 5396

cacgcgtcag cccacgcgtc cggaatgact ccaccaatga tgcgatgaag attgtctaca 60
gcagctcatg atctctatth tgtagagtt tctcgtcct attgacatac agcaagtcag 120
tgaatgggtg atgtcttttag gagcttgtgc tgttgaagtt tctgagagag atgcgggaga 180
agaggctgct tggctctgcca tagccagtgc acatcagcaa catctacagc agttgggaag 240
caacactgct tggaacagca gcagaacatt tcgggttttg cgttcttcag acgtgtctcc 300
agagaatttt ctgatggatg ttgcttccgt ttccgagtgg aattcag 347

<210> 5397

<211> 229

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-G6

<400> 5397

ggctcgaccc acacgtcagc gcaagcgtcg gctcgacgta taatttgga tatcacagaa 60
tgtttctcag gtttgtaaca ggcactctac gactacctgt tggaagggtc ccaccttga 120
gtcgtcgttg gacgatagct aagcgaactc cagatgcagg tcaatgtcca gataattgtc 180
taactactgt gaagacctgt accaattagc tgaaacttcc gcaatactc 229

<210> 5398
<211> 335
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-G7

<400> 5398

gacccacacg tcagaggcaa ggagaaattg gagtcatcaa agttcatgag aaaaatccag 60
aaatggctta tactattgtt cgcccaggac acctgataaa tgagcctgcc aaagggccca 120
agtcagtaat agttgatcaa ggtgatcgca ttagttggag ggttactaga gcggaacgtag 180
cgaaagtatg ctgtgcttgt ttaaaagtcg aaaatacgat gaatgacgacg ttcgaaatag 240
ctgggaggaa ggaaacagaa tcgcagtgca atcttcccga aacttatgag gcgctgttag 300
ctactgtaaa gccggataag aaacctgagt ctact 335

<210> 5399
<211> 414
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-G8

<400> 5399

tcagcgaaac agcaataact gtgaaaatgc agtaaaactag cagtaggacg gaaagacccc 60
ataattcttg actagatagg tttagggagg agagagaatc atgaagtaga ggaggtgggg 120
taagagatga aagaccactg catgaggata aggaatctaa ctgagtaagg aaaataagct 180
taagctagtt tggctgggga agtaaagcct aagaaagagt aaattaggca agcaaaggca 240
tgagagaagt ataatagcag aagcatgctt gaagagagag aaagagatct cagaaaggga 300
agaaaagtca gctatagaga acaggtgaag gacaactcaa gaagaggaga gcaccgaacg 360
atcgaagaag aaagcttggg ggtaaacagt taatgtggtg ttagagaacg tatc 414

<210> 5400
<211> 390
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-064-Q1-E1-H10

<400> 5400

aggtcaaagt gaaagcatat ttttacaaaa cttttcacia aaccaggctt tagctcctat 60
 gtgcttgcat tcagccttcc acgactgttg gaacgggttg aacggagcgt tgtttttacc 120
 agaggaaata gacagacccg agaacgcagg tttacctcca ctgaaaccat atctgatgcc 180
 ttttactagc cagtttccct gtataagtat agcagatctg ataaacctca tgtgctgtaa 240
 cagccttgaa gtttcttggg ggacctgatg taccggtata ttatggacgt ttggacaggg 300
 gtgttctga tccctctggg cttattcttg aaccaactat gagtttgtct gctcttatca 360
 attctttcaa cgctattggg tttagcaaaag 390

<210> 5401
 <211> 333
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-064-Q1-E1-H3
 <400> 5401

cacgcgtcag gtgaatttgc gcaatgttgc gtgcaatagc ttccaagctt cgtgggtgcc 60
 atctaacagt attcactcgt tcccttttgc gtgctacgct ctcactcgagt tccacaagca 120
 gcggtgatca gggaagcagt ttacgttcga gtgttgccag tcgctatgca tatactttat 180
 tateccttgc tcgaaaagaa cgtattttgg agaaagtcac caacgatgtg aagcagtttc 240
 gcacttttga gtcggatcat ccggagttca agcgcttttg acaacatcgc acagttccaa 300
 aaggcgaaaa gcaacaatta ttgcgcgagt tgt 333

<210> 5402
 <211> 342
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-064-Q1-E1-H5
 <400> 5402

gaattcccg ctcgacccaa acgtaagcga ttcttctgtc gttgggctcc acgatgagt 60
 ttgactcctg tgttcagttg ttgataggag aacttcccg agttggtacc ttgaacgttt 120
 gtttatcttc ccaagaaaca gttggggact tggaaaaaga gatatggaaa cggttgggtt 180
 atcactggcc tttggtatct ctgtatggag ggaagctggt gactacggaa gaaaggctct 240

tgcgttttgt caacggttcc tttctacaag caagaccttt ggggtgttttg gaaaggaggg 300
aaaggagggt ttggtacact tttgagaggt caagctgcgt tt 342

<210> 5403
<211> 348
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-064-Q1-E1-H7
<400> 5403

attcccgagc cgaccacgc gtcagcccac gcgtccgcgg acgcgtgggt tcatggcaag 60
gaagagcggt gggctacttt ggggattgag gctgttctgc gtagaggagg ctttaaagga 120
caaaacttaa cactgatgct tgttggtcaa gtaattttac tgtctcatct acctcttgta 180
cctttatttc gttgaatggt gttcactttg gatttcaatg ttttaggggtg atggacgac 240
ctagtgcctt ggtaaacaag agacaccaag gaaatacagt tcctttcttc ggttttcact 300
ttatcaacct tgactactga ggagcctatt tctttggaat ttgcctcc 348

<210> 5404
<211> 249
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-064-Q1-E1-H8
<400> 5404

cccacgcgtc cgaataaatc taaagtaaaa ggtaagaaag aggaaagggt tacgagagaa 60
ggaagtagaa agaagagagt gtaaggcggc gtcataatag aaatccgaaa ggagtagaag 120
aaaagagaga gaagaaagaa aagaagagaa aagccgtact gaagaccgac acagggtactc 180
gaggagtaag gatccaaagg tagcgaagta aatagacgtt tgaaaggcgt ccagtatgaa 240
aggagaaaa 249

<210> 5405
<211> 372
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations

<223> Clone ID: LIB190-065-Q1-E1-A8

<400> 5405

gggtaggctt agaagcagca aaccagagag ggaaaaagcc cagaagccaa gataaggtat 60
caaagtaaag aaagaaggaa aaggagaaga agagagggta ggcttagaag cagcaaacca 120
gagaggaaag cgttaaagca tgaaagaaaa gaaatccgaa aaagatgagc ataaggagga 180
gaggagttag tacgataagg ttgagggaga ggataaggag gggagaggag atagggataa 240
gttaagagaa gagataaagg aagagaaggg ataagagagg agagaaggag aggaagggaa 300
gtaaaagagg gagtaaggaa tgtaagtaag gaagaagaac gaagaaggag tangaacgag 360
agagaacgaa aa 372

<210> 5406

<211> 366

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-B10

<400> 5406

gggtcggccc acgcgtcagc ccacgcgtcc gctttggtgg gcaccgctgc tatttgtgtg 60
gaacaatgac gactagtact acaacgagac ctaaattatt gaaagtagta gtcctaggag 120
atagcgggta acggtgtaat ctttcaacgg atcgtttctt aatcaagttt agtgttggga 180
aaacttctct cttggagcgc tttgtcaatc gtcgttttag tcagcagtac aaggccacta 240
ttggagcggg tttcctgacc aaggatatgt ttgtagatga tagaaatgtt aatttgcaaa 300
tatgggatac aacgggacaa gaacgatacc aaagcctcgg taatgcgttt tatcgtggtg 360
ctgatg 366

<210> 5407

<211> 344

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-065-Q1-E1-B12

<400> 5407

tattgtccta aagtttgtgt ttttgcatg aataagcaaa caaagttgga aaatgttgaa 60

tacgataaga aagttgaaaa cattcactac tttcaccaga accttatgtc accaagcggt 120
atcaaagaat attggaacgc tgtcgaccct gtagtagccc tcgtgatggg tttcaacttt 180
acttccagcg tgagtattgt atcagtgaac aaatatgtga ccagttggg ttttcgtttc 240
atgtgtactt taacttgat ccacttcatt gtcacttttt tgggcttagt actttgttct 300
tacgtggggt tattcaaacc anagaaacta gacctatttg cagc 344

<210> 5408
<211> 339
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-065-Q1-E1-B3
<400> 5408

ccgggtctgc ccacgcgtcc gccacgcgt ccgccgagcg cgcccgcca cgcgtccggg 60
aaccgaagta ttgggatgga agaacgtatt tgaaggcaaa tatatggaat gcagtgttgg 120
aatttcaacg aaaacctgga gataccgggt cggcagaagt acaaggtaag acaacaaggg 180
aaaccatggg atggatggat gtgaccacat gtgtgtgtgt gctctctctc tactagtgtc 240
gggtgtgacc aagagaatgg aagcattgga gaaacaatgc acagaaacat agatgatccg 300
aaagcacaat atttgttggg tcaactttact tcgaggaga 339

<210> 5409
<211> 432
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-065-Q1-E1-B7
<400> 5409

aggtaacggt caggaattcc cggctcgacc cagcgtacg gtttccagtg gatttatctc 60
atcgtagtt aggaatagaa gattggattg gataacaaca cgaatatgca aagttttatt 120
gtaggaatgc aagtttgcga tagttgttat agatggactc tccaacgact gcaaaaagaag 180
acgacgaata gtattctcgg tggtttgctt tcgaggagaa ctcttagtcg tcctgttttt 240
tttcgtcaag tatttttctg tgcacaagac aatcacccaa cgtatgaaga gtttgccaac 300
gtgttgagac aaggaatatt tccttgggaa caagacgacg aaaccagga acgaggtaac 360

cctcagtgtt cectgtgtca aggagacttt tatattcctt gtgaaaactg tcaaggcggt 420
gggtttttgt tt 432

<210> 5410
<211> 409
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-065-Q1-E1-B9
<400> 5410

gggtcgagcc acgcgtcagg tcaagtccaa gtccatgaaa gacttgtag cttcggtcc 60
taaaaactgg ggtagatggg ggcctaata tgaagttggt tctcttaatt ttctaacgaa 120
tcaggaagtg ctgagaggta ttcagtcggt tcgatttggg gaggtgtata cggttggtga 180
gttgatagcc aacccaaaag gagagccggt atttcctggg agaacagggt cactcaagtt 240
tatgacacaa gataagagct actataaaa tggcaagtcg cagtctttac ctggtggtgg 300
tgaatactcc gatgatggca tcaccatgta cttgcaaggc tccacacagt atgatgccat 360
gggtcatttc tggatatgat atcatatctg gaatggatat tctgccgat 409

<210> 5411
<211> 381
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-065-Q1-E1-C12
<400> 5411

ggtcaggaat acncgggtcg agccacgcgt ccggaggatt cgaggagaga gagagagaca 60
gacagatggc caacgctggt caagatggcc ttgtgcaagt caacaaacat agaaaagtaa 120
agagattgca agaagataat attttgaata gagcactatc acaaccagga gatgtatttc 180
tgtgtttttg caacatccag ttgttggtga atgcagaaag agctattata ggaaatatta 240
cttggtccaga aagtatcgaa ttgtgtcgtc tattagctgg acatatagca gtttggttcg 300
atgaacattt ggatgacttt cgtttggaag ctatcttggg agcactattg tgtacttggt 360
attgtgagtg gaagcgtttt g 381

<210> 5412
 <211> 445
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-065-Q1-E1-C2

 <400> 5412

 gcgtccaggt acaggttcgg aattcccggc tcgaccacg cgtacgggcc ctcgtcctcg 60
 tcgtccaacg agtaccaaga cataaaatag aaaatggcaa ctttactatc caaaaaaaga 120
 agagcagtag ccgacggtgt tttcaaagca gaacttaacg agtttctgat gcgagaattg 180
 tcggaagagg gatactctgg tgtagaagtg aaaccacgc cgttgccaac ggaaatcgtg 240
 atccgagcta ccagaacaca aaacgtgttg ggagaaaaag gtcgaaggat tagagaactc 300
 actgcgttgg tacagaagcg attcogtttt cctgaaggaa cagtggaaact ttatgcggaa 360
 aaggttgcgg atagaggttt atgtgccatt gcgcaagcag aaagtttgcg gtacaagttg 420
 ttgggtggat tggctgtgcg tagag 445

<210> 5413
 <211> 315
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-065-Q1-E1-C5

 <400> 5413

 gaattcccgg gtcgaccac gcgtacgcc acgcgtccga aaaaagagag aactacagaa 60
 gaagaagaag aaaccactat taccaccacc agcagtagta gtagtagtaa tagtaaagag 120
 acaaagacag aaaaacgtcg agctgcttta gagcgctttc ggacagaagag agccaatcgg 180
 tgttttcaaa agaaaattcg gtacgagtgt tcaaagaagg tggctgacgt acgtcctcgt 240
 atacgatgtc gttttggtaa aaaaggaaga ttccaaaaac tttggttga aactggtgac 300
 gcaacaatcc caact 315

<210> 5414
 <211> 401
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-C9

<400> 5414

gggtcgagcc acgcgtcagc ccaagcgtcc gaagagtctt ggaacttgtc caaggaagag 60
aagattgaaa actcgatgcg cattaagaa aagggcaatg agttgttcaa gtctggtaga 120
tataaacttg cgaagaagaa gtatgaaaaa gtgataagcg atttggagtt tgatgtgcgt 180
aacaagtcgg acctcaatac gggacaaaag caacaaggaa aatccattct gttgcagaca 240
tacttgaatc ttgcagcttg tgaagaaaag cttggcaatc cgaacggtgt attgaaacaa 300
tgtaacaagg gattggagtt ggattccata aatgtaaagg cactgttttag aagagcctct 360
gcatatttac gcatgtcggg agtggtgtta gcagagaaag a 401

<210> 5415

<211> 298

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-D10

<400> 5415

ggtcaggaat atccgggtcg agccacgcgt cagcccacgc gtccggtttg cacgcagctg 60
cgtatgacta tcgtacttta gggcttcctc ttgttgctga agaaagaaag ttggaagcaa 120
ttcaatcgga cgtattggat gcttttatgg aaatgcattt tacacccgat cgaatgatat 180
tctctgctac gaatgtcgat catcaagaga ttgttcagtt ggtagataaa ttcttttcga 240
gtatgcaacc atctcctcga caatatattc gtccaaaggc aatatatacc ggtggaga 298

<210> 5416

<211> 444

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-D3

<400> 5416

gtaaggtcag gaattcccgg gtgcacccac gcgtacgccc actaggagat aaaaaattta 60
tccgggagca aaaagatata aattttgctg atatttttat gaactaagtc aggtgttttc 120
tcatgtageg acgttgcaac aaaaaaccac gacaatccac gacgctgtgg aggtctgaac 180

gaacgagaaa atggaagatg agatgggctaa ggtgtgggcta ttcaccgacg caaataatcc 240
 caagttctgg acgcgtaaat gagaatgctc agtgctgcat attagattcc tggaattata 300
 catcaaaaat aattgcaact taaattctca aaatttacia gtattcttgc accgacgaat 360
 actgcttgcg ttagttttgc ttgaagctca cccggaaagt tttcgtgcgg catgaagcag 420
 tgaagataag tgaaatcttt gttg 444

<210> 5417
 <211> 402
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-065-Q1-E1-E10
 <400> 5417

ggtcaggaat atccgggtcg agccacgcgt ccgcgaaatt ctgaagaaat gtgtaataat 60
 tgtgtaacgg attcttagtg aagaagcaa ggatgcaagt agaacctgag gaagaagatt 120
 ttttaccaga agaagaagaa caagttgaag aacattctca accgtcacat ctggttcaag 180
 aacaaccgga aacgaccaag aacacagaga acgaagagga atccgatgcy gttgaagacg 240
 aagagattgt gcgtctacag aaacagaagg acaggagag atttgcttcc ttggatgaag 300
 aggaacagga acgctacgaa tattatcgta tgggagattt ggataaaaac aaagtgaaaa 360
 aactggtttc gatggccaat cctgccttat ctatgatgca ac 402

<210> 5418
 <211> 426
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-065-Q1-E1-E11
 <400> 5418

ggtcaggaat acncgggtcg agccacgcgt cagcattttt gtcgggttgc ccaccaccaa 60
 aaggagactt ttataggatg gaaagttctg ttctttcgag tagtttggtg tgtagttcaa 120
 catagcattc actagtataa ttcgtataac ggttctcttc cttttctagt ctagaccctt 180
 ttaaaggaat gctacactca aagtcttcta ctttgaactg tgctcaagct gcttcagcaa 240
 caaccattag atccatttcc aatgaaacgc agcagcaagt gcccaacaca ggctcttata 300

tttcttttca ggctcccaac tcttacgaag aggcgaaacc aaaactagca gcactcgact 360
cgagcagtga gtgggagagc gacgtacgcc aagaacagaa aacccccgcg tctgggtttc 420
ctggga 426

<210> 5419
<211> 424
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-065-Q1-E1-E4
<400> 5419

aattccccggg tgcacccacg cgtacgctac ttggaacaac tcatcctaaa gcacaatgcc 60
cacggcaatg cattgagtct aaagacgttg cgcgatggct tagattttta ttttccaaac 120
aaaagtgcag cgttcaatt tgtagagttt ttgcatcgcg ttgtcccagt acgcatgaaa 180
aactccgac atttggtttc tcatgacccc cacaacacta cctacaaata caaatattct 240
ttttccgcag agttgcccc agtttgtang gatgacttgg tttgtttacc gaaaaaagta 300
tccaccagtt taggcggact aggtccattg gtattggtga ccaaagtatc ccaaatactt 360
tgtttcatcg attcgtggac gtttcaaacc ggagaatttt ccggatatca atattggnag 420
aatc 424

<210> 5420
<211> 394
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-065-Q1-E1-E5
<400> 5420

aggcaccggt caggaaattc cggtcgcacc cacgcgtacg cccacgcgtc cgtcacaatc 60
gagtgttatt tttttgaaac tattctagtg catgcttaaa gcggatgctc ctgaacaatg 120
cgacgactac agagaagact acaaggagtg tctttggcac aagaagcagg taacttttgt 180
ttttgtaggt tcggaatttt gtaaacgttg attttttgta aagctggcgc gaaaatactt 240
ggtagataag gaaatcagaa gacgaaagaa actcgggtctc cctatacctt cgggtgatga 300

agacgacaac gagcaacagc agtaacgatt ggagagtttt atttttctgt agaaagggat 360
cagctgtttt caataaaaag tttactagtc tcgg 394

<210> 5421
<211> 408
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-E9

<400> 5421

ggtcaggaat taccgggccc acccacgcgt cagcgggaagc gtgggtgtcg aaagaacgtg 60
ctgtgaagtg agagaacgta cgagaaagcc aagtgaggaa aagaaggcaa gtagagggcg 120
gcccagaaaa ggagagggcg taagacgtga tacagagtag gaagaaaaga gaagagagct 180
agaaaggagg taaaagaaga gtaaaaggac tagaagaggt acggaattca cgaggaagga 240
gcgtgaagga aggaggaatc ccaagtaatc gaggaagaaa aagcttcggt gaaagcgtga 300
acggattttg tacacactgc ccgtcaagtt ctggaagtgt gctaggaata agcaggagaa 360
gtagaagaga gtaggaaaag aagaaggaa gtgaagacgt aagacgtg 408

<210> 5422
<211> 439
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-F2

<400> 5422

aggtaacagg ttcggaattc ccggctcgac ccacgcgtac ggctattgca agatgtcaac 60
tggaatttac gaaagaccgc caccgaattc tccacaaagg atggcgacca agccttgcaa 120
accctactca gcaaggctcg ttttccagtc ctcttggtct tgaaaaatct ggctcggctc 180
cacggcatgc actggctcgac gtgtcagtcg gtactcaagt cgttgattct atcgtaaaaa 240
gtgctccatc aagtattctc catacagttg cattgcttga ccaccacctc ttctaccatc 300
accatccaac tggccaactt tgtatggaca gaatacacac cgggtggtcta cttgtttatc 360
ccttttatga acccatagca aaccaaccac cgtgcaaaac ccaaggctgc caaagaatcg 420
cgatggattc cccaattga 439

<210> 5423
 <211> 451
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-065-Q1-E1-F4

 <400> 5423

 gtaacggtac ggaattcccg gctcgaccca cgcgtacgtg ctatgatttt acgctttgat 60
 tggcggaacc cgagaaacga gagtgatgag gagattaaaa tgccttattt taaaacggtg 120
 gtagctgcat atgtatttgg actggcgctt acttttttgg cggttgacgt ttttcatgca 180
 gctcagccgg cactattgta tctggttcca tgttgtcttg gatccgtaac ttgtctgtct 240
 tttattcgag ctgaatttaa acagttgggtg aaatacgatg agtccaagga cgaaaaaact 300
 aaaaattagt ggtcataaaa aatattcgct tccacagggt tgtgcttgct tcaagagttg 360
 acgagtatca agccacagc ttttagctat ttcaactatt ttgctgtact ctagtctgtg 420
 aagcgaagaa agcacggtac aatcaagcat c 451

<210> 5424
 <211> 269
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-065-Q1-E1-G1

 <400> 5424

 gaattcncgg ctcgacccac acgtacgcc acgcgtccgc ccacgcgtcc gacaaagtct 60
 gtcaagaaca gagaaagaga atgacaattc agatatcaac tcgtcgtaaa caccgtttca 120
 agaaacctgt tccaaaaacg acagctccac ggacaaaaca ggtaacaaac tgacaaggga 180
 acttgtcgca atttgcatcc atacacattc aaagagaact cccaagaaa aacttggatt 240
 ttgaaaagtt cccctccatg aacttaaatt 269

<210> 5425
 <211> 388
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-065-Q1-E1-G10

<400> 5425

ggtcaggaat atccgggtcg agccacgcgt cagggcagtt aggcaatggt tgcttatttt 60
catatgtctt tcggctctgt taggttcaac tttggctgct tctggtgcaa cttctattta 120
ctcgttgctt cagagtaaaa gagactatac ttttacagtg caaagcatag agctggctaa 180
tctaacagac gtatacaaca gcagtgtatt gggctttacc tttcttgctt ccaatgacac 240
tgcttggaag caatcaagag ccaatgtcac tgggtgcactt agtgcagcaa aacaaaacgt 300
aacaggagca atagcgtttc tagaacgctt gatagcagca agcacagtga ataaaacggt 360
ggagtttagt aagctctcta gtggtacg 388

<210> 5426

<211> 413

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-065-Q1-E1-G11

<400> 5426

ggtcaggaat atccgggtcg gcccacgcgt ccgggaagaa catgaaagca gaaatggcag 60
cgagagaagc agcagcagca caacaagcga gattagcaga gtgggaagaa tggagtggag 120
aaggaagagg agacactagt ccaagttcgg atccattaac ttttaccaaa ctttatgtgg 180
gttctattca cttttctatt agtgaagaag atttacgcac tatttttgag ctttttgggg 240
aagtcgtttc cttgcagctt cacaaggacc ctgaaacggg acgttcacga ggttttgggt 300
ttgttcaata cagaaaccac gaagatgcga aaaaggcatt ggaacagttg aatggacttg 360
atcttgctgg taggccttta naggttgggt tggcaactgc agagactcag aaa 413

<210> 5427

<211> 295

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-065-Q1-E1-G4

<400> 5427

ggtaacgagt caggaattcc cgggattgaa gttccgcagg atggcgcctt ctctaggcaa 60

actttggggtt tatccttcgg gagtgggtttt tctaggtgca gctgttggtt tgtatgggtt 120
gcaacacgat aaattgccac tagagagagt ccagtttgca aaaacctttt caaagcccgt 180
ttcacaagca gataatcaag ttgttcgagc aacaccggaa gaatgcgatt gtcttcgct 240
ttggcagtgt atgactagtg gccaaagacga ctgttctcaa cttgaacgtg aactg 295

<210> 5428
<211> 275
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-065-Q1-E1-G5
<400> 5428

ggctcgaccc acgcgtacgc ccacgcgtct gcaattgtct ttgttggtgt gtttaatatg 60
ttgggttttcg tgcacctcgt gagtccaaac aagatatctt caaaaggag ctttgtaaca 120
tgccctgttc tatccaagaa acgagtatcc ccgtctaaga gagcaactat tgtggcttcg 180
tcatttggtta tgaacggttc caaaatggga tcacagggcg gtgtcaagtg taaattctct 240
ggcgtaccaa aaccattggc gttgggtcaa aaact 275

<210> 5429
<211> 414
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-065-Q1-E1-H1
<400> 5429

aggtacaggt tcggaattcc cggtcgacc cagcgtacg gctcaacgcc cacttttctt 60
ccactcaaat attggctttg gtagcagacg tttccaacgc tgatcaagtc aaccaagcta 120
tttcacagtt tgcttccaag tttggtcggt tggatattgc atgtaataat gctggaatcg 180
tgtttagtgg aacagaagac aagtatgctt ctgaaaatgc ttccgtggag cagtggaaaa 240
agacattaga tgctgacttg acaggagtat ttatatgttg tcaggcggaa gcgaaatgga 300
tgcttcaca acattatgga aaaataatca aactgcctc catgtcagca catattgtga 360
atcatcctca aaaacaggcc gcctataatg cagctaaagc aagtgtagta caac 414

<210> 5430

<211> 413
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-065-Q1-E1-H4

 <400> 5430

```

aggatataggt acggaattcc eggctcgacc cacgcgtacg tgttgggcct tgtggtggtg   60
atgccctgga ttgagctacg tagtggcaac tccgctgtct tgaaagacat aactgcaagt  120
attgaaaagc ctgacataaa atggataact aggacgaatc tcagtacttg tctgaattct  180
gcagaaggaa atgttacggt tgacttgctg cggcagtgtg gcttgaagga tatattttca  240
ttgaagcttc tcgacaataa ctttaagttg gcgtgtttta atgatgcctt gtttttagtt  300
ttaccaggct tatcctttgt tattactggg aatcgatat tctgtagacg ctcggacttg  360
aatgaaacgg aagcattgga gtccctgctt tcgtttatga agatatgccc acg          413
  
```

<210> 5431
 <211> 385
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-066-Q1-E1-A10

 <400> 5431

```

egggtcgacc cacgacgtcc ggcactgtct agtcgtccaa ctcagcgaaa cagcaataac   60
tgtgaaaatg cagtaaaacta gcagtaggac ggaaagaccc cataattctt gactagatag  120
gttttagggag gagagagaat catgaagtag aggaggtggg gtaagagatg aaagaccact  180
gcatgaggat aaggaatcta actgagtaag gaaaataagc ttaagctagt ttggctgggg  240
aagtaaagcc taagaaagag taaattagc aagcaaaggc atgagagaag tataatagca  300
gaagcatgct tgaagaaaaa gaaagagatt tcagaaaggg aagaaaagtc agctatagag  360
aacaggtgaa ggagaactcc aaaag          385
  
```

<210> 5432
 <211> 403
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-066-Q1-E1-A11

<400> 5432

gtcaggagtt cccgggtcga cccaagcgtc agcccacgcg tccgcccacg cgtccgtcta 60
atttgaactt taataaccagt ttcctagctg aagtgtattht tcgaatggga gcgattcaag 120
agataaaaacg aaacttttgc tctgcaaaaag agttttattht gaaagcattg aaagagaatc 180
cgaaccacgc aaagtcgttg caacagttgg gttggattga acatgaagaa ggtcgttcag 240
atgaaggctt taaaatatta aaacgagctg ttgaagcaga tcctaacgat ggtcagggat 300
ggatthtgggt aggaagactg cacatggcaa aaaaggaata tcgttctgcg tacgataatt 360
atcaacgtgc agttttattgc aatagtcgaa atccgcgggtt ttg 403

<210> 5433

<211> 430

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-A12

<400> 5433

ccgggtcgac ccacgacgtc agcccacgcg tccgcatttht tctttgggag aaatacgacg 60
tcttcgactc atggcaccta agaagacatc gaaagtagca cctcatcctg aagctctgggt 120
taaaaaagaa aataaggaga aacagaaaga gaaaaaccct cttttcgaaa gcagacccac 180
gaactttgggt attggtggag atgtataacc aaagagagat gtcactcgtt ttgttcgata 240
tcgcagatat gttcgtcttc aaagacatcg agtgggttcac atgtcgagac tcaagggtcg 300
acctgcaatc caccagttta cgcatacctt ggatacaaac gtttccaaac agctattcag 360
cttggttaatg acatatacat cagagtctag gttggaaaag agaatgcgcc tacgtgaaat 420
ggcataagct 430

<210> 5434

<211> 456

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-066-Q1-E1-A4

<400> 5434

cggtcaggaa ttcncgggcc gaccacgcg tcagcccacg cgtccgccac gttgtcaagg 60

ggagcctttg tgagtcgatg ttgtcggcac aaccgcaaga cgaggaagaa caaccacaag 120
 aagagaatgt tgtgcagaat atttacgggt taggttcttt tgaatattca gacagttctt 180
 cgttcgaacg acaaaggaat aaaaagccta ctactttttt gggcaagttt gcaaccactg 240
 tctcagacac gtggaaacag ttttcccaag gttttactga agttttctcaa aaaaaggccc 300
 taaagtaccc aagtctacta tgttttggag actctttaac ggaatattcc caacatatct 360
 ccacttcaga aggaagaggc tggggagctc tgctggctaa tcattattct acaaaggcag 420
 acgtcatcat acgtggcctt gctgggtaca atactc 456

<210> 5435
 <211> 418
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-A8
 <400> 5435

cccggctcga cccacacgtc agtagagcgt tgcatactcc ttagctttat cgaaaagtgc 60
 acgtcgttca tcatttgcac tcttctcctt ttggaataac tgctgaatat gtcacccgg 120
 tggaggtagt attcttagga acggcttcca ttgcaggacc tatgctcgtt ggacctcact 180
 tgttgacgct ttggatatat ttggggctaa ggttggtaca aacggtggaa ggcacacagt 240
 gatatgactt tccttggagt cctcgttatt ggataccttt ttatggagga gcagagtttc 300
 atgattatca tcacaagata tattctggga attatgcttc cagttttatt tggaacgact 360
 atatgtttgg aacggattat gcttatcgtt tgtacaaaac aaaagggaat ggatgctt 418

<210> 5436
 <211> 446
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-066-Q1-E1-B10
 <400> 5436

ggtacaggtc agaatgtcc cggtcgcacc cagcagctca gattggcggc tacttcataa 60
 tatgtgagaa aagctgctct tatgtctcaa gaatatgtgg atagacatcg cgtggcaatg 120

gaaggcgctt cgtcttcaca aagaaattta acacaagggg aagcactgga acaacggaca 180
 agtgcagttt ccttttcaag aactcttcac gacgcttcca gtgactcggc agcaaccgaa 240
 gcacaacaag acttgctgca ttctgtgact ggaaacacaa gtacacctag aaacttgaag 300
 acaagggaaa atagttgaa tagtatcgct tcaaaggatg cggcagcgtc gaatgtcgtc 360
 gttacaggca gcaacaaaac aagtaaagaa aggaacaaga acgtctcaat caacanacc 420
 gatagatata atactagtgg aatgac 446

<210> 5437
 <211> 408
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-B11
 <400> 5437

cgggctcgac ccaagcgtca gatgaaagaa gcagcaccga ctgttttagca aaaacacagc 60
 actctgcaga aaagagaaaa tgtaaagtat agagtgtgcg gcctgccaaa tagtagagaa 120
 gaaatcgatg aaagtgaag cgagtaaaag atgaggtata gagaatggcg gtcctaacag 180
 taaggatcca aaagtagcga agtaaataga cgtttgaaag gcgtccagta tgaaaggaga 240
 aaccagtgtg cactgtctg gtcgtccaac tcagcgaaac agcaatgact gtgaaaatgc 300
 agtaaactag cagtaggact gaaagacccc ataattcttg actagatagg tttagggagg 360
 agagagaatc atgaagtata agacgtgggg ttagagatga cagaccac 408

<210> 5438
 <211> 383
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-B2
 <400> 5438

gaccacgcg tcagccacg cgcccggaac tatcttgctc tggtgcaaca tttctcgga 60
 tatgttaatt ggaaggtcat cggagtccac aataccgaga acaaaagata accaacgagg 120
 tagcaatgca tccttggaac acttatcgga taccaacact cgcttcaaat aaagcttaat 180
 aggagttgat tctgattctt cggaaaaaaa gtcgaatggg ggcctttctg gaataaaaaag 240

aatacttcga aactccaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 300
 aaaaaaaaaa aaaaacttaa aaaaaaaaaa aaataaaaaa aaaaaaaata gggggggcct 360
 ctaaaagatt caaccctacg tcc 383

<210> 5439
 <211> 445
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-B5
 <400> 5439

ccccggctcga cccaagcgtc agcaacttcg ccatgtatga ggcatttcaa gtttcagtgt 60
 ttccgtttcg aagtttaaaa tcgtatagct atgccagtcg ttggtcgaga gccaagactt 120
 gtccgcagtc aaagcatagg acttgtcttg aggttggttc ttcagtaacc atgtcaagga 180
 gaagtgtctt aaaattagca cttcttactg gagcgttttg gcagttttct gtttggaag 240
 atgcagcttt ggcagatggt gcggtctctt ttgccacaaa gatcacttct cgtcgcagat 300
 acggaccgcg tattcttggg ttagaacacg atatcacctg tctcgaagat tatattcata 360
 atcaagagtg ggacaagata catgaactag tatcggaacg ttatttgaat gccagaata 420
 agccaagaac aggtaaattt tggtc 445

<210> 5440
 <211> 451
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-B6
 <400> 5440

aagtcccggc tcgaccaca cgtcagcga cgcggtggcg gacgcgtggg tggcgttggt 60
 gaaaaagtat cacggacca cagaccttct gtcgctgggt ctcatgaaa aaggtcgaat 120
 gtttctgaaa tccgatgccg tactacgaat tgcagagttg ttggacaatc agacccttcg 180
 tgttttggca gttgcaacca gagtgggatt tccgaggtgg ttgagagatt gggatatatac 240
 agaaattata tccaaatata gacgtcaaata atttgagag accgatgttt gtcgtctgat 300
 ggaacctgga tgggaacatc ggttcctttg atggatatat tgttttgttg tatatcagat 360

atctctgttt tggaagaatg aaggagacaa cgagtgacaa catgatgttc acagttgtga 420
 ttccttcata gttggttgat aaaagaataa t 451

<210> 5441
 <211> 414
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-B9
 <400> 5441

ccggctcgac ccaagcgccc ggaatgatgt ggtaagagag agggcactta tgaggttgaa 60
 gaagtacagc gacgagatag aagctctcag gagagagtac aaagaaagag aaaaagttag 120
 agaacgttat gatcactatc gtgtcaagtt agagaattta gagaagaaag gaaaagatca 180
 accacgaatt gagcgcaatc agcagaagtt gaaggacgca gaagacgctt atcatgcagt 240
 tactgcagag ttgatacaga aaatggaaac tagttggaag aaacacgttg aaatttttgc 300
 tgaggcgctc attgctttgt ggcatacaca aatgcttatg attgatgagt tttccaagtc 360
 ctccgaggag atacggcctt atgttcaaga ttacttgaat aacttgaaca caag 414

<210> 5442
 <211> 437
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-C10
 <400> 5442

ggtacaggtc aggaagtccg gctcgaccca cacgtcagga cgtcgtctgt gttttcagta 60
 acgatggaac aagtgtgcac atacgagaat atttcgcac aaggtacaat agtagaagag 120
 gcaacgctcg aatcggttaag tgacgcagaa aacgagcaag gtgcgtatga gcaagaagaa 180
 gcagaagaag atagccatca ccacacacat gaaggaggac acgcgcatga acacacagca 240
 gaagagggaa caaccataca tagcaaagcg gagaagatat ctacaaaagc tttgcagaaa 300
 ttgggtatac actcagtttc aggtgttacg agagtaacta tcaagaagac cagaaatatt 360
 ctgtatgtta tctcccgatc cgatgtttac aagtcggccg ggtcggatac gtatgttatt 420
 tttggggatg caaagat 437

<210> 5443
 <211> 421
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-066-Q1-E1-C11

<400> 5443

```
ccggctcgac ccacacgtca gccacaaca agcgcgagaa atggactcgt ggcgttacta 60
aatgcaagt agaataattc taaggggccc tgtgtaagga cgaagacaac caccaccaga 120
aggaaatgtg gaaaagctta gttacttgca gaacaatcaa caactacttt ctgagtaaca 180
aaagatatct caccacctcc cactatctgc taccagaacc tatcctcact accaccataa 240
aagagagaat tttggaactc tacaaaacag accccgagaa atggtcgaaa caagtactag 300
cttctcgttt caaagtttcc gagcgcacca tcaagtttct catagaaatg gaccagctag 360
ctcagtcgat agtcgggtgt ntggaccaag aagcaacgca acactttcaa aaaatgtatg 420
a 421
```

<210> 5444
 <211> 436
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-066-Q1-E1-C12

<400> 5444

```
aagtcgccgg tgcacccaaa cgtcaggaaa gaatgagtaa gaaaaaaggg agtcattcca 60
ccaggggagt aaaggcgcaa gaaagaaacc caaagcaatt gacgggaatc ggaaaaaggg 120
gtggatcacg taaattaatc cgatataaac cgagaacctt acctctcaa gaaggtgttg 180
cacggctgtc gaaagaacgt gctgtgaagt gagagaacgt acgagaaagc caagtgagga 240
aaagaaggca agtagagggc ggcccgagaa aggagagggc gtaagacgtg atacagagta 300
ggaagaaaag agaagagagc tagaaaggag gtaaaagaag agtaaaagga ctagaagagg 360
tacggaattc acgaagaang agcgtgaagg aaggangaat cncaagtaat cgaggaagaa 420
aaagcttcgg tgaaag 436
```

<210> 5445
 <211> 433
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-066-Q1-E1-C4

 <400> 5445

cacgcgtcag ctgcatggat atgtgcatcc actcaaaacc tggggtagat gtaaaccaaa 60
 agaaacaacg gttattgtca ttcttagcta gtcaggagcc ttgttatcta tgggaagaag 120
 aagatcgtca tcaagaacca caaatagata gtttatatat ctctagtgtt ggggtacaagg 180
 cgatcatttt aagggacaag atgttggttg ttcacagtgg tcccttgatg gagaacaacg 240
 gtgggggtgat ggatgagaat aatagttttg catatttcat gtcttccagt ttttatatca 300
 tgtttgtacg tctttgtcta gcggaatata gaaacaagtt gtccgttgaa acagctcagt 360
 ggcaagcggt tcaacgcgag ttggatatgc actgtgctca natatccgct gcaactcggtt 420
 tgcacgacaa acg 433

<210> 5446
 <211> 235
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-066-Q1-E1-C6

 <400> 5446

aattcccggc tgcaccaca cgtcaagaca cgcacgcgcg cacacgtcga cgcacgcgctc 60
 tgcccatgcg tccggactat agaagtcttg tcaccttggt ttgctttgga tagttgtact 120
 aggattcatg aacgaaaatg gaaggaacag gaacttgaaa atctgacaag aatatctcaa 180
 ttgaaatgag atcataacta ggtgttggcc atagatttaa agtagtatta tttgt 235

<210> 5447
 <211> 317
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-066-Q1-E1-C7

 <400> 5447

aattccggcg tcgacccaag cgtacgccgc agcgacccca atcactgaaa tattcattgc 60
 tggagtaaca ctgtttctag aaccaagaaa cgtacaagtt ccgatattcc gagcagactt 120
 acgttacttt gagttgaacc atggaggcct ctggtggttt gccggtagcg tcgatttgat 180
 tatttctgct ttgagttctg cgagtatatt tgccaaagag gcacaagtgt tttgtggcca 240
 ctggaagcat ctttgtaaga agcaccggtc cgttattcct tttgttcgtg acccttggca 300
 agagtccatc ccttttg 317

<210> 5448
 <211> 430
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-D11
 <400> 5448

gtcccgggtc gaccacacgc tcagacgccg gaagaaatga cacgtttaga aagtcacttt 60
 gtggaaatgg gtttgaaaca agaagataga attccgttaa agttgaaaat gagtcaagta 120
 gagccattcc gttatagagt ggaagattgc ttgtttaaga ttaccaagaa tgtgctcaag 180
 gaagctcgag cgacggaaat taggagagag atattgaatt ccgaaaaaat gaaagaatac 240
 tttgcccgtc attcttttaga ctttgaggcg ttgaaaagt atcgaccttt gaatacgcga 300
 accaatccac atttggcaga tattccaagc tatctgatgc catccgaact gcgtccactg 360
 aataagaatg tacataaaaa tttgcaatcg aagcaaagca aaaagagaag gaagacggga 420
 cgaccgttcg 430

<210> 5449
 <211> 331
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-D6
 <400> 5449

ggtataggtc aggaattccc ggctcgacct acacgtcaga agagtcagt tcttgccaac 60
 gtggcaatcc gctgctgaat agtcggtaca taaacttgag tagggaccac aactggaaca 120
 taatatttgg tcaaggtttc aaatattgtg tgctgtgtgt ctctcactta cacaaatata 180

tacaaattcc aatgaataaa aaaaactgct gcttttccgt tttgaaaaaa aaaaaaaaaa 240
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa cggcagaggc tcaaaaggat acaggtctac 300
 gtatactgac acgcgacttc aaaacccttc t 331

<210> 5450
 <211> 404
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-D8
 <400> 5450

aattcccggc tcgaccaca cgtcaggaat aattttacca acaaggaaaa ctttcccttg 60
 ccagttgtga ataaagattg aaaatgatgt aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa caaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180
 aaaaaaaaaa aaaaaaacaa acaaaaaaaaaa caccacaaaaa tcaaaaacac agaccatcaa 240
 aatggggccg cccccccagg gaaccacccc tcagttaccc aacttaaccc ccttgcacca 300
 caccacctt tccccaaaca gcaataccaa cgaccaggtt taaaaccatc cccctcccca 360
 aaaccgcgc acccccaaac gtaaacccca tgcccccaa cccc 404

<210> 5451
 <211> 410
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-D9
 <400> 5451

ccggtcgcac ccacacgtca gccacgcgt ccgcccacgc gtccgaaaaa cacagcactc 60
 tgcagaaaag agaaaatgta aagtatagag tgtgcggcct gccaaatagt agagaagaaa 120
 tcgatgaaag tgaaagcgag taaaagatga ggtatagaga atggcggtcc taactgtaag 180
 gatccaaagg tagcgaagta aatagacgtt tgaaaggcgt ccagtatgaa aggagaaacg 240
 agtgtagcac tgtctagtcg tccaactcag cgaaacagca ataactgtga aaatgcagta 300
 aactagcagt aggacggaaa gaccccataa ttcttgacta gataggttta gggaggagag 360
 agaatcatga agtagaggaa gtggggtaag agatgaaaga ccactgcatg 410

<210> 5452
 <211> 355
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-066-Q1-E1-E1

 <400> 5452

 gaccacgcg tcagcccacg cgtccgtatc gaagaaagtc aaaagttggt agttgccaaag 60
 aagttggcaa agaagggaaa gaaagtagtc attcgtgacc gaccagatat tattgaagcg 120
 tgtcgacagg agtttggaat tatatttata tatcaatata aagattcatt gttggagaat 180
 cattcttttag caaataatag caatcatata tatgacaaag tgaatccttg ctcttctttt 240
 tcgacaggag atgttcttcg agatgcagca cttgcaactg tggctaagag acatggtgga 300
 ttgctctcta cgagtgaatt ggaaaagaaa taaaggaatg ttgttttcat gtttt 355

<210> 5453
 <211> 439
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-066-Q1-E1-E11

 <400> 5453

 aagtcgccgc tcgaccacac cgtcagccca cgcgtccgcc cacgcgtccg agagagttga 60
 acccttttga aagcgagctt ctaagtgggc gtaattgata ccaaatttct ggaaaagaag 120
 ctggtttttg aagtcagaca aggtacccta gttgtgttca agtacgaaaa acaaaacatg 180
 gcaatacaca agcgcacctt taaagtttca taagcttctt ttggagtagc tccgttttgt 240
 acaagtagcc aaaaacacgt gttatactgg ttgttgatgt ggcagtccac ttgtctccaa 300
 ctaagataat cgcgaagagt ttgttcggaa ggatatacaa ccacgcgacc gtcaaaggta 360
 ggcttgtaaa agtcaaactt gcctatgaaa aataaagcaa aatctcaccg gaaaaaaaaat 420
 ttaaaaaaag ggcggcccc 439

<210> 5454
 <211> 214
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-E12

<400> 5454

aagtcccggc tcgacccaaa cgtcagtttg gccaaagcaa agcacgacga agatacgggt 60
gacaagaaga agacggcagt agcaaaaaaa taaacgaagc gagacattga aacgctgtcg 120
aatggttatg aaagggtgat atcgtgttgt tggttcttat tgggtagttt gttttttcgt 180
atggataaaa aaaaagatag acttgtgtct gtgt 214

<210> 5455

<211> 305

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-066-Q1-E1-E2

<400> 5455

cacgcgtcag ctattataag tggatagaac agttggagca gcttganaga aataattaga 60
aacaatagaa ccggggaaaa aaattcgtaa agatatgaaa ctctttcgaa ataaagggaa 120
gggaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaga gaaaaaaaaa 180
gaaaaaaaaa aaaagaaaaa aaaaaaaaaa aaaaaaaaag agaaaaagaa agaaaaaaaa 240
aaaaaagaaa agaaaaaaaa aagggggggg ggcgcaaaag ggtgaaaggt aaaaaagggg 300
gaaag 305

<210> 5456

<211> 432

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-E4

<400> 5456

cacgcgtcag attgaaaatc atggtagaca ctaagcttaa ggacgggtgct agtgctgctc 60
tttggacttg ccgcctatct ctctatacag ttgtgttagc attttcagca acaataattg 120
gacttgatgg aaggaaggca gataacatat ggaacgatgc cctatattat catggaaaaag 180
tggtgaactt ttgtgcatat tcggcttcgt ctgtttttga aggtggcgac catggcgcat 240

gtaaatatgt gatggctttg gcttctatca gcttgatttt agttttcttt ctttggttgg 300
 cctcctttgt cgacgcattg tatecaattc ttacaaagtt ctggtttggt gagcttggtg 360
 tcaacatatt ccttactatg tgggtggttg ttggtgcaat tgtggtgact gcaaagcgaa 420
 cttctagtgt tg 432

<210> 5457
 <211> 435
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-E5
 <400> 5457

ccggctcgac ccaaacgtca gggcggcaaa gaatgaaaac tcttggttga tgcttttgca 60
 agtgaagaga ctaagcaagg acgctgttgt acctcaaaga gggtcgaaac ttgctgcagg 120
 ttatgacatt tgttcctcgg aagactgtat tgtaccagct cgaagtcggt actgtgttaa 180
 aactgacttg gcagtggcga ttccctcggg acactatgga agaatagcac ccagatcagg 240
 acttgcccta aagcatggaa tcgacgtagg agctggtgtt atagatgatg actatcgatg 300
 aaccctcggg attatttaaat ttaatcattc cgaaaaggat ttcaatatac ccaaggaaaa 360
 tcaattacct caccttacct aagagagaat atctactccc aaagttgttg aagtggataa 420
 tctcgatagt actac 435

<210> 5458
 <211> 423
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-E9
 <400> 5458

ccggctcgac ccacacgtca gccacgcgt ccgagcaagc gtgaaccgtg agggtagttc 60
 atcatggttg agacaaaact tcaagatggt gttagtgtt ctctttggac tgctcgtctc 120
 ttctctaca cagttatttt agcattctct gccactatca ttggcttgga tggacgtaaa 180
 gcagacaaca tatggaacga cagcttattc tatgatggga agtacattaa cttttgtgct 240
 tattctgcct cttctgttgt agaaggaggg gaccatggag cgtgtaaata tgtcatggcg 300

ttggcgtcta taagtttgat tctagtcctt ttcttgtggc tttttacatt tgtagatgcg 360
 ttgtatccta ttcttaccaa gttttggttt attgaattgg gtatcaacgt gtttcaaaca 420
 atg 423

<210> 5459
 <211> 401
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-F1
 <400> 5459

acgcgtcagc gatttttggg tgacaggaga tgaataagct tccacgttta cctaaagaag 60
 tagacgaact gggaacgaca caaactacag caaagggtcc attttataaa gacagcgagg 120
 aagaaaatat gaacaattct agtgaggaag ataataatca agtagagaat gaacctgata 180
 gtggtcacag tgcttcgaca cctataccca tctctctca aagtactggg aagcctttgc 240
 tctcttcaaa ggttgagtct ttgggggttt ctacaacaga aggtgaagga actcttctga 300
 gcattgtgag tcttcgggtg tttctgcccg cggataaacg ggagaagaat caagcagttt 360
 cgtttcgtcg tattcaaagt ttaaacaaga acaggaaatg t 401

<210> 5460
 <211> 401
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-F10
 <400> 5460

aagtcccggc tcgacccaaa cgtcagggtg acacccaaat agaactctcc aaggaacagg 60
 aaaccgcttt acatgaaacy tttgatgacg caaaccatga aatggttcct aacaagaaga 120
 gcaggacctg caaagtgaat gaagaccatc cttctacgca acagtaacca cttaaagaga 180
 actttacgat acagtcttaa taatggtgct cgagatagat tgtagccatt tacctcagtg 240
 gaaatactgt attgaactct ttcgatattt cttcaataat atctgttgta agcattgatc 300
 gttgttttct cttaaagtct tggagagAAC atcttcgagt catcgacat gcactataaa 360
 cagggataaa ccttgaatag tgattttggt tagtttttaa a 401

<210> 5461
<211> 449
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-F11

<400> 5461

ggatataggtc aggaagtccc gggctgaccc acacgtcagc ggacgcgtgg gtttgttgca 60
agttgggttg tttctggact ttaaggcatc tctcttctct tgttggtgtg actggttgta 120
gatattgtga aagatgggag tcaaagttgg tattaatggg tttgggagaa ttggaaggct 180
agttcttaga gctgctttgg agaaacagtc tgtagatgtg gtagctatca acgatccctt 240
tattgatttg gactatatgg tctacatgtt caaatatgac tctgtgcacg gcgcttatcc 300
aggtacagtg gtagcaaaga atggaaaact tgctgtggat ggacacgaaa tggcagtggt 360
tgccttcctg gaccctagtg agatcccttg gtcctctact ggagcagaat atattgtgga 420
atcaacagga gtatttactg ctgcagata 449

<210> 5462
<211> 430
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-F12

<400> 5462

ccggctcgac ccacacgtca gcggacgcgt gggaaaacac aagacaacaa tgtctcgtcc 60
caagtgtttc tttgatattg ctatcggtgg acaacctgca ggaaggattg tattcgagtt 120
gttctccgat gtcgttctta aaaccgcgga aaatttccgt gccctgtgta ccggtgagaa 180
agggtttggg tacaaagact ccaagtttca taggatcatt cccagttca tgtgccaagg 240
tggagacttt acacgcggcg atggaaccgg tggcaagagt atttacggca ccaagtttga 300
ggatgaaaac ttcaagttga agcattcgga gcccttttta ttgtccatgg ccaatgcggg 360
accgaatacc aacggaagtc agtttttcat tacggtagtg aagacacctt ggttggtatg 420
gaagcatgtg 430

<210> 5463

<211> 409
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-066-Q1-E1-F6

 <400> 5463

 ccggctcgac ccacacgtca gagcatgtcg actgttttag caaaaatcga agaagtagaa 60
 gcagaaattg ctagaacaca gaagaacaag gcaactatgg gccacttggg gctcttgaaa 120
 gccaaagctag caaagcttcg tcgagagttg ttggcgccac ccaaggggtg tggcggtgga 180
 ggcgaaggat tcgatgtcac gaaaaccggt gatgctagaa taggtcttgt atggtttcct 240
 tctgtgggaa agtctacgtt gctgaacaag ttgacaaaca cagaatcaga ggttgctgca 300
 tatgaattca ccacactaac ttgtatccct ggtaatttat cacaagggcg ccaaacttca 360
 gctacttgat ttacccggaa ttatagaaag agcaaaggat ggaaaggga 409

<210> 5464
 <211> 435
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-066-Q1-E1-F9

 <400> 5464

 ccggctcgac ccacacgtca ggttatggtg gaactgctgc cagttggcaa caatatgctg 60
 cagccgcagc agcagccgca gcagcagcag gaatggggta ctttaacgcg ggttatccta 120
 cgacaggaga gatgcctatg tatgccaacc caacgtcagt ctatagcaat gattcggttt 180
 cccaacaaga gagcgactcg aagaagagtg gtcgcagcag tggaagcagt cgtagaacct 240
 ctggaaagaa cgagcggttat catccttatg agcggtgaac gaacattact tgccacgttc 300
 cacgtttaac tggggcaaaa gcagaacgaa tcagacaaag ttaactggc tgatatctta 360
 tgtggattta gaattacttg aaaaggaatg gtttttgggt caagtacaaa atacattaca 420
 agagtgagtg gctgc 435

<210> 5465
 <211> 319
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-G1

<400> 5465

gggccgaccc acgcgtcagc ggaagcgtgg ggtggtggtt ggtgacgacg acaggtttcg 60
acgtcgacga tgcctaaaca aatcaaagat atcaaggaat ttctgctttt ggtccgcaga 120
aaggatgcga gagccatcac aataaagaaa aacaagacca acacgaaatt caaagtccgt 180
tgcagcagat atttgatatac ttggttagtg aaagaaaagg acaaggcgaa caagttggaa 240
caaagtcttc caccaggttt gactttgaaa aagattgatt agaaataaac tctatcgttg 300
ttgttcttgt gatggaaaa 319

<210> 5466

<211> 432

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-066-Q1-E1-G11

<400> 5466

aattcccggg tcgaccaca cgtcagattt tatgtccttg tggtagtagt aatgtctagg 60
cttggttaat tgtcgccagt aacttgtctt cgtcgttctt cttattatta tgagtgaaaa 120
ggtggagaat ggtactaata acgagttggt agaaaaaccg aggggttgta tatttggtgc 180
tgaggcgta ggtggttatt tggtgccag accttcagag tgtggacgta gctttgttca 240
cgtcacgcc agaggttctc acttgaaagc tattcaggaa aataacaatt gcatcgtttt 300
aaaaagtatc gatggtgact gcacttccca attggatagc atcggggagg acgcacaaag 360
tgtgttgaa actgcgacaa ctncgtaga tgccgtgata ttacttgca aaatggacca 420
gttggtgct gc 432

<210> 5467

<211> 414

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-G12

<400> 5467

ccggctcgac ccaaactca ggagaatatt tgcttctgaa aagttcgagg aaaaggttgt 60

aaagaagaat gtaaacggaa acaaaggcaa gaaaaactcc ttttggtcgt ctcttccagt 120
 gagccctggt gtactgggtt ttattttatt tgttgactt ggtagcagtt tccttccat 180
 catacgggca gcttttggtt ggaaattggg tattgaaact gttccagagc tgtaaagtgg 240
 agggaacaac acagtctgga ataagtggcg ctctggcact gtagtaaaac aactggtgac 300
 aataaaacat cactgctgaa acaagtattg cataatctaa aactttgttt tacttcaaaa 360
 aaaaaaaaaa aaaaaaaaaa ataaaaatat atcaatataa acatacaaaa taaa 414

<210> 5468
 <211> 384
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-G9

<400> 5468
 gaccacgac gtcaggggaa gctcaagaga gaataaaagt agcccaggaa caattaatga 60
 ggaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 120
 aaaagggcag aaacacaaaa ggataaaaaa attgagtaca catacatgca aagggcggtc 180
 ttcttctagg ttgtcacctt atttcacttc actggcgcgc ttttttccct ttcattattc 240
 ggcatatatt ttgattttac gtcctcgtt ttccttgcac catatcggca tttccccggc 300
 ttgectcata tcaatcttgc tcgaaccgat ccccttccc aacatttgct taccctgaat 360
 ggggcctgga attttccctt ttcc 384

<210> 5469
 <211> 73
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-066-Q1-E1-H10

<400> 5469
 ccaaaggat ccaagcttac ttccccttgc aagcaacgac aaagccctcc gggacggccc 60
 ccaaattca atc 73

<210> 5470
 <211> 385

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-H4
 <400> 5470
 gtcaggaagt cccggctcga cccacgcgca aagacctgta atcatgtgga gagtcagaag 60
 aagaagcttc cgtgaatctc aacgccatga atcaagtgga gatgatcaag ccttggaaac 120
 tttccttttc ttacggacgt gctttgcagt cttcatgtct gaaagcatgg caaggaaagg 180
 cagagaatgt ccgagcggca caagaagcct ttttagttcg tgcaaaagca aatagtgagg 240
 ctactttggg taaatatgct ggaggtactg ggaatagcga atctttgttt gtcaaagatt 300
 ataagtacta agggaggaca tatctccagt ttaccttta tgtgtgttgg cctgaataaa 360
 ctttcttgat agtaaccttt tagtt 385

<210> 5471
 <211> 216
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-066-Q1-E1-H8
 <400> 5471
 aattcccggc tcgaccacg cgccaagaac gggagtcgta agaaggcctg aaatagtcaa 60
 atacttcata tttgactttg aaagggtggat gaatttcact aaagagatga aagcacgtcg 120
 tcaagaatct ggagataccg gtggctgtgt gtaactttat aaaacaagat agttttatca 180
 cgtcgactct ataaagatct catgagattc ttccct 216

<210> 5472
 <211> 439
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-066-Q1-E1-H9
 <400> 5472
 ggtacaggtc aggaattccc ggctcgaccc acgacgtcag atcacaaaag aacaagagga 60
 agagtttcgc gaagctttta cgttattcga caaagacggg gatggtaggg cttgttcttc 120

caaagtgcac gggagcgcag tatcaaacac gtcgtttagg taacatcaca gtaaaggaac 180
 tcggtacggt ggtccgttcc ttgggtcaga gtcctacgga agcagagttg aaagaaatga 240
 tagcagaagt tgacaaggat ggaaacggca ccatcgactt tcaagggtact acatgcttct 300
 gtccgtangg ttggagaaga ctctgactgg aacgaatatg ctcttagagt ttctcgactt 360
 gatgtccagg catatgagac aagcagatac agaagaagag atacgtgaag cgctcaaagt 420
 ttctgataag gatggaaac 439

<210> 5473
 <211> 382
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-A1
 <400> 5473

tccgggccga cccacgcgtc agtgaagaga ttgcaagaag ataatatattt gaatagagca 60
 ctatcacaac caggagatgt atttctgtgc ttttgcaaca tccagttggt ggtgaatgca 120
 gaaagagcta ttataggaaa tattacttgt cgagaaagta tcgaattgtg tcgtcgatta 180
 gctggacata tagcggtttg gttcgatgaa catttggtg actttcgttt ggaagctatc 240
 ttggggagcac tattgtgtac ttgttattgt gagtggaagc gttttgaagg agaattgggg 300
 gtacaagact ggaatgaatt ggagaagata tcttccttag atacttgga gcttgtgctt 360
 ggtacaagac aaagaatgga ta 382

<210> 5474
 <211> 405
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-A2
 <400> 5474

ggtcaggaat atccgggccg agccacgcgt cagcccaagc gtccgataac cacatatgcg 60
 acacgaagct cgcttcctac caaaagttgc caaacaaca gaacatacgt aacctatttg 120
 aatcttttct ccactttcaa aacacaaggc actattatcg acaataggca taactggaaa 180
 atgaaaatac tttctagcat ctgcattcta gcacacaca gtatccagtg ggccctgttt 240

ctaacgggag acgaagaact ctacttacgg ggaaatataa attacacaag taattcagta 300
gaggaataga ctccgactgc tgtggcttaa aatagatacc tccagtgaga taagcagcat 360
tttgcaagag ggatgagttc tcttctcat ttaagtcaca aacat 405

<210> 5475
<211> 219
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-067-Q1-E1-A3
<400> 5475

gtcaggagtt cccggctacg acctaaggct gaagcagcag caaatggtaa cgtatcgttt 60
ttcgaatatt ttgcacctgt ttattactat gtacctggct atcctcagtc ttattggtat 120
aatccacaat ggggaccaa tttttcacgt agttcacaaa gtaagaacct acttgaaagc 180
gacgttgctt tgaaagagaa tcgaagacag aaaaataaa 219

<210> 5476
<211> 398
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-067-Q1-E1-A5
<400> 5476

tcccgggctc gacccaagcg tcaaaagaaa cccaaagcaa ttgacgggaa tcggaaaaag 60
gggtggatca cgtaaattaa tccgataaac cgagaacctt acctctcaa gaaggtgttg 120
cacggctgtc gaaagaacgt gctgtgaact gagagaacgt acgagaaagc caagtgagga 180
aaagaaggca agtagagggc ggcccagagaa aggagagggc gtaagacgtg atacagagta 240
cgaagaaaag agaagagagc tagaaaggag gtaaaagaag agtaggagga ctagaagagg 300
tacggaattc acgaagaagg agcgtgaagg aaggangaat cccaagtaat cgaggaagaa 360
aaagcttcgg tgaaagcgtg aacggatttt gtacacac 398

<210> 5477
<211> 423
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-A8

<400> 5477

aggtaatggt caggaagtcc cggctcgacc cacacgtcag cggacgcgtg ggcggacgcg 60
tgggttcgag gagagagaga gagacagaca gatggccaac gctgggtcaag atggccttgt 120
gcaagtcaac aagcatagaa gagtaaagag attgcaagaa gatgagattt tgaagagagc 180
actatcacia ccaggagatg tagttctgtg cttttgcaac atccagttgt tggatgaatgc 240
agaaagagct attataggaa atattacttg tccagaaagt atcgaattgt gtcgtcgagt 300
agctggacat atagcagttt gggttcgatga acatttggat gactttcgtt tggaagctat 360
cttgggagca ctattgtgta cttgttattg ttagtggaag cgttttgaac gagaaattgg 420
ggg 423

<210> 5478

<211> 353

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-067-Q1-E1-B4

<400> 5478

cccacgcgtc agggaatggt ggcgattggg aacgagaaag gcgtcgacga cgaaagaaga 60
tcgctgtang aacaacgaca taaaatgtct gttttattac aaagttcgga ttttcaacac 120
attcttcgta ttctgaatac caacattgat ggcaagagga aagttatgta tgcgttaacc 180
gccataaaag gtgtgggtac acgtttctcc aatttagtcg taaaaaaggc agaagttgac 240
ctgagtaagc gtgctggaga tttagcgtcg gaagacattg accgcataat caccatcatg 300
cagaaccccc gacagtttaa aataccagat tggttctca acagacaaaa tga 353

<210> 5479

<211> 419

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-B8

<400> 5479

aggtaatggt caggaattcc cggctcgacc cacacgtcag cccacgcgtc cgcccacgcg 60
 tccgcccacg cgtccgtaga aaggagtcg ccacttgaag aattggtcaa ggatgagtaa 120
 acggaaaagt aacaactccc ttgccgagga agaaacggtt gtgcggtttt tagaacagaa 180
 caacagcaaa atcgaccctt tagcgttcaa aacattgtgg atgcactatc gaaagaagga 240
 ataaagaagg catcttgtga gaaaattcta actagcctag tcgaaaagga agtagtatca 300
 gtgaaggaat atggaaaggc aaagatatac ctatttcgac aggacactat tgagatacca 360
 gataagaaag aagtggaaga gatggacgag cagttaaagt cgaaagaaga agaatatgc 419

<210> 5480
 <211> 348
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-C3
 <400> 5480

cacgcgtcag agaaaatgaa agcacagaag aatgtaaatg gttagagtaa aaaccataaa 60
 ggaagtaaaa gcgggaatct gagaggagga aagccacatt gggactgaga aagggtccaa 120
 acaagagaag tcagcagtgg ggaaaattgg gcaatgtaca gggaagtatg acccagtaat 180
 gaggagtggg gtaaacagaa aaggaagtag aaggaggga tgaagggaag ttatggcaaa 240
 aacacgtgcc aacagcagcg gtaaacgtg tgtagcaagc gtagagcaga agaactgggt 300
 gtaaaggtcg agtagtagag taagtgtaaa agggaaagga aaggagag 348

<210> 5481
 <211> 141
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-D10
 <400> 5481

acgaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaagg 60
 aagacgcaca aaaggataaa aaacttaa atacatggat gcaacgctct tggtcttcta 120
 ttttgtctcc tacgttcatt t 141

<210> 5482

<211> 332
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-D6
 <400> 5482
 cccggctcga cccaagcgtc aggggagggga ggatgatggt ttggttgcgg ttatgggtgg 60
 ggttgacagg gatggcacgt ttcgctgcgg cgataggtgc ctggtggaac ccatcctcgc 120
 ccatcgatac catctaccga aacattgcac catcgcatct gctcgcatct ccagtggatg 180
 aagcgtcgtc gtcgttggtg agccgcttat atgccacctg gttatttctt tcgaccgttg 240
 tgcgatgtag ttttatgcta tcttcogagt tttccgtgcg tctagccgtc gtcaccttgg 300
 acacctatgt cgtcccgttg gtgcactttg ca 332

<210> 5483
 <211> 371
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-E1
 <400> 5483
 cccacgcgtc aggtcgaggg acgacgagtc ggtgagaagc gctttgcaac gttacattca 60
 agttgaaacc aaaggacaag ttgaaaattg ttgtgttcgt tgccggttga gaacacttgg 120
 agtaccatgt aagctagctg gttgtgatgt ctactgcttg ccgcaaccta ctttggaacg 180
 actctgtgag gtgaacaaca accacacaga ggcttgtgca aatagttgca aactgtgttt 240
 gggactattg acggatcaag tggttcagta gttttgtagc gttattcaaa cgaaattaaa 300
 ggagtttcaa gtggacgata cattccgaat aagtgtcaag ttgtgtgagt cgtataaaga 360
 tcaactgctg c 371

<210> 5484
 <211> 392
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-067-Q1-E1-E10
 <400> 5484

ggtaccgggtc gggaattccc ggctcgaccc acgcgtacgg gcagagtatg aagtagagct 60
 ggcggaaaat gaccgcgttg gggacttttt tgtcaagttt catgggtccc tagatacacc 120
 ctatgaaggt ggtgtatgga aagtacatgt cactctacca gaagcctatc cctacaagtc 180
 accttctatt ggctttgtga accgtattta tcacccaat gtcgacgaaa tgtcaggttc 240
 cgtttgtctg gacgtcatca atcaaacttg gtcacctatg tttgacttgg tcaatatatt 300
 tgaagtattt ttgcctcaac ttttgacctt tctaaccctc tcggaccctt tgaatgggtga 360
 ggcagcgggt ttggaaatga nggaaccgga aa 392

<210> 5485
 <211> 415
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-E12
 <400> 5485

ggtaacgggtc aggaattccc ggctcgaccc acgcgtacga tgggagaatg acagtggaca 60
 aggaaaggaa agaacctacc tcctcctacc cagcagagtg ggaacagcat cgtatcgtcc 120
 agtccaactt gtttcgtcaa caagtagaaa cttttttgctg tcctattcca aaggatgtgc 180
 aacaaagaat ggaacgaatt gcggaagcct tgttattaca acctcaagac acgttgatag 240
 atgtgggttg tggaacagga gccatgggtac cttttattca caagtatatt cctttatctc 300
 acatttggtt gtgtgactgc agtgaagcca tgttagaaca agccaagaaa aggtttcccg 360
 agtgtcattc gattcactgc gactttttta agttgcaaca agcaccggag aagac 415

<210> 5486
 <211> 387
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-E6
 <400> 5486

gaattcccggt ctcgacccaa gcgtcagcgg acgcgtgggt caccacgct tccggaattc 60
 ctgtggactg gtggtcactt cgtactttga tgtgtgacat gttgaccgga ctgccgccat 120
 tttagtcaca aaatttgaac tcgatgtatt aacagatatt gaaagcagaa ctgaagctca 180

cttctgatcc gaacattctc tccccagatg caaggaatct gatacaggca ttgttgcaac 240
 gtgactctca taaacgttta ggtactggac caatacgagc gcatgaaatc aattaacatc 300
 ctttctttcg ttgtatagat ttcgaaaaat tgtatagaag agaaattgag gcaccttgga 360
 agcctcttat gctttctgat gaccata 387

<210> 5487
 <211> 386
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-F1
 <400> 5487

cacgcgtcag gtgctttttcg tatttccagt tctgtcattg caaggagaag gaagtcggtt 60
 gctttccgaa gtatgggttct ttaaaaagtg gggacctctt atcatataaa tatagatatg 120
 gacattgtat gtacctatct caatatttat attccataat agagagatga aacattgtat 180
 agaccgttgt gttgtcttgg aaacctcgta gaaaacccaa gtttctccct ggggaggaat 240
 tgaccaatgg acacacaagg catccagaag cagcaaacgc actttggaga aagttgggtg 300
 aactccatct atcattgttg ttgtggtgaa cgatgggtgg gttacaagtc acggattcca 360
 agaccaagaa aacatatgaa ataaat 386

<210> 5488
 <211> 403
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-F10
 <400> 5488

ggtaacggta aggaattccc ggctcgaccc acgcgtacgc ataccgctgg gacagttggc 60
 gttttctatc tatgctggtt atctattctt cgggtccacac tacattcacc aagtaccttc 120
 caaagaccaa accattgggtg tgagtttatt ggtatattgt gtatttgggt gtatttgtgt 180
 gacttttgtg gttgtcaccg gatgggtgac tcgaggcagg gtaatcgaaa ttcgtcaaca 240
 tgtagtgaaa aacaaatcca cacaacaagc aacaagttgg ttgcagtttt attgccatcg 300
 atatttgggc ataggaaaac cgctttgtat ccaagtgaag gttggcaatg tacgacagat 360

aggcaacgtg gaaaggttgg caaggtttgg tgcgttgccc aat 403

<210> 5489
<211> 310
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-F12

<400> 5489

ggtaacggtc ggggaattccc ggctcgaccc acgcgtacgc ccacgcgtcc ggcaaataagg 60
aatatatgga tttaacaagga caagccactt gtgaaaaata taccaaaaaa ggcattcttgt 120
ggacaacggtt ggtcgccttg atcgttggac tagtcacaga cgattacctg cgaatgggttc 180
aagtatttat attgggagta gttttggtag ctatgggcgt acttttcccc tggccatggt 240
attcaagaca tccacttgtg tttgtccacg ccgcaaccaa aaacaacaat aataacaacc 300
attcttaacc 310

<210> 5490
<211> 351
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-F4

<400> 5490

cccacgcgtc aggagagaat catgaagtag aggaggtggg gtaagagatg aaagaccact 60
gcatgaggat aaggaatcta actgagtaag gaaaataagc ttaagctagt ttggctgggg 120
aagtaaagcc taagaaagag taaattagc aagcaaagcc atgagagaag tataatagca 180
gaagcatgct tgaagaaaaa gaaagagatt tcagaaaggg aagaaaagtc agctatagag 240
aacaggtgaa ggagaactca aaaagaggag agcaacgaac gatcgaagaa gaaacttttg 300
gggtaacagg ttaatgtggt gttagagaac gtatcaagca ccacgattga c 351

<210> 5491
<211> 349
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-F5

<400> 5491

ttccccgggcc gaccacgcg tcagaaagga cactgcgttt gaaacagaga gtaagaagaa 60

ggggcggaag aaacgaagaa acaagtcgaa caagaagaat gaaatatcaa atcgatgcaa 120

tgtatgcggt gaaaatttta cttctagaaa caaacttttt gagcatatca gaacggaggg 180

tcatgcttta cgagtttcgt aaggtataat tgtttttgca tccacttttt gcaaatagta 240

gcaaagtacc gactagttaa tagtttagcaa ttctcagtgt accgtgttat ttatacgaaa 300

ttttgaaaca acttgattac atataaagtg catatagata gatcctttc 349

<210> 5492

<211> 409

<212> DNA

<213> *Cyanidium caldarium*

<223> Clone ID: LIB190-067-Q1-E1-F6

<400> 5492

gaattccccg ctcgaccac agcgtcagat tttatatattc agtcgcgaaa attgcgcaag 60

gctcaagagg agaacttcgc atggattggg tgagacttat actgagattc ctccatattc 120

gaagtggaaac aaccacaacc gatcacgaaa actcacatgg agtccacgtt atttcgaaaag 180

accaagtagt tacatctaca gcgactcaac aacctttgcg ccgcgctcgt caaagaaagc 240

ctatgaatac tccaaacttc tttgcatcaa gatgctgttt accagttttt ggcgatgaaa 300

tagttggaat atttgtaaata tgtgatactg taatgggtgca tcggagcaat tgtacctcca 360

cgagtagttt agatgactct tttcaacgct ttcatttgct ctggaaaaa 409

<210> 5493

<211> 373

<212> DNA

<213> *Cyanidium caldarium*

<223> Clone ID: LIB190-067-Q1-E1-F8

<400> 5493

gaattccccg ctcgaccac gcgtcagccc acgcgtccgc atttccattt ttcggtttgt 60

gaaagtaaca aagattgttg tgctatatcc ttttggagga agctcatgga aggaaaggat 120

cgtccaagtt tatggaaaaa agctttgaac cgtgatactg tgtgggaaaa ggaccagata 180

ttagatgtgc tgttttggat ccgccacgtg gtagctctgt tgatagggtg tctattcggc 240
 cttctcaaat taactggctt accaggcttt attctttaca tatctatttg gttcactatt 300
 tctcaggctt atttcaagtg gtttttagat ttagacgaag acgactttgg tggttgggga 360
 accgtacaac aag 373

<210> 5494
 <211> 313
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-G1
 <400> 5494

ggtcaggaat atccggccag agacgaaagc gataaagaca tgagagaaaa gaaatccgaa 60
 aaagaagaga aaaaggtaag aaagaggacc gaatcagggt aagaggtaga ggagcaagaa 120
 gagaagagag aatgctgggt ggagtagcga aacaagagaa gggaagttaa aggtaagaaa 180
 gaggaagggt ttacgacaga acgaagtaga aagaagagag tgtaaggcgg cgtcataata 240
 gaaatccgaa aggagtagaa aagaaaaacg tagatgaaca aacaaaaaga gaagggtgggc 300
 ggggaaagat aaa 313

<210> 5495
 <211> 388
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-G10
 <400> 5495

gtacggtaag gaattcccgg ctcgaccac gcgtacgatg tttttgcccc atcttgtgga 60
 agacttggcg aggattcgcg gtatgatgaa accgggtagt ttattttctt gtgttgtttg 120
 gggagaggaa aaggactgtc atatttttta cgcagctagg agcgttatca gtcctcctcc 180
 tccacctcca ggaactccag tttcttatgg taccaaggag aaagttatgg aagcccttag 240
 aaaggcagaa ttttcagatg taaaggcgggt ggagtttgag gttgttcacg aaaccaaaga 300
 tgccgaagaa tacatcacc ttatgtctgg tgtcaataaa tggatggaaa aaagtttggg 360
 agagaaagggt tccgaacttt ggcaaaaa 388

<210> 5496
 <211> 273
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-067-Q1-E1-G11

 <400> 5496

 aaaaccaaca aagagctttt aatttcccct tttgctttgt gaggatttgt tcacactgcc 60
 ttttgaggag tggctactca caaggcattt tctctcaaaa aaacgcccc gaaataggta 120
 gaaaatccag caccagcaca gcaacaacca accaacattg ctacttetta gggacaatcc 180
 tgaagcaact gagcttcctt tcccagttgg cccctttcca aggaagtcaa tacgcgatag 240
 tctgcaacag taggaatcca accaccagtt tca 273

<210> 5497
 <211> 407
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-067-Q1-E1-G12

 <400> 5497

 ggtaccggta aggaattccc ggctcgaccc acgcgtacgc ccacacgcct ggcatggtgg 60
 ctggttgctt ctatcggtgc gaccgctgcc agaacatcca tcgcgttgca cagcttgca 120
 cacatcaaga catcggtgca ggccctgacc gccttggtgt ggggaaatac gtgtcacaaa 180
 ttcttcaata tattcttgga gttcgtagc tattgggttg gcgaaactgg tggatgtatt 240
 ccgactgtcg catactatcg cttattgacc tcattgtgtt ccgaccacct gggatttgca 300
 actcagttgc atcaagatca tgcctatcaa tcagcaatgt cagctggctg tcagtgtgta 360
 ggtcgtggac tgtgtacata tatagtcaga gtgtgtgtca gataaaa 407

<210> 5498
 <211> 394
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-067-Q1-E1-G3

 <400> 5498

ggtcaggaat atccgggccg acccacgcgt cagctgtcgt cgatgtcact ttctgtttaa 60
 agacaccaac cacttatgac gatatcaagg caacgatgaa agctgcgtca gaaagcaaag 120
 ctttaaaggg aatattggca tataccgaag atatggtagt ttctactgac ttgtttcaca 180
 atagtcattc ttcgatattt gatgcgaatg ctggaattat gttgtcggaa acttttgtga 240
 agctgattgc ttggtatgat aatgagtggg gctactccaa tcgtgttgta gatttgggtgc 300
 accatatggc gaaagttgat ggtgtagctt aactctgctt ttcttgttgt tttttcgtgt 360
 attgtttgtt ttgtgaaaga gatgaaatgt gttg 394

<210> 5499
 <211> 381
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-G4

<400> 5499
 ccagc ccacacgtcc ggggctctta tcgattgcct gccttctctc gacactcgtt 60
 ggtttgcct ttgaaaacac gttttagaca gattcaaag gctgcagtaa cttttaagaa 120
 acagaatact gatgtacctg gtattctata cggagaaaat gctcccaaca actttggagt 180
 tattgttgtc caagagtggg ggggtttgaa cgaagtgatc aaaaaacgag cacaagagct 240
 gagcgatggt ttgcaatgta aagctctttt gccagatttt tatcgaggaa aagtagccac 300
 ccaaccagat gaagctcatc atatgatgac caatttggac tggcccgccg ctatcgatga 360
 tattgcagct gcctgtcaat a 381

<210> 5500
 <211> 379
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-067-Q1-E1-H1

<400> 5500
 gggccgaccc acgcgtcaga aagaggaaag gtttacgaga gaaggaagta gaaagaagag 60
 agtgaaggc ggcgtcataa tagaaatccg aaaggagtag aagaaaagag agagaagaaa 120
 gaaaagaaga gaaaagccgt actgaagacc gacacaggtg ctcgaggaga aaggagaccc 180

aaattaaggt gagagaatgg acgataagga actaggcaaa aggatatggt atctgcggta 240
gaacatatga aagaagcagc accgactggt tagcaaaaac acagcactct gcagaaaaga 300
gaaaatgtaa agtatagagt gtgcggcctg ccaaatagta gagaagaaat cgatgaaagt 360
gaaagcgagt aaaagatga 379

<210> 5501
<211> 401
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-067-Q1-E1-H3
<400> 5501

gggccgagcc acgcgtcagg aggagcccgt atttccctta cttatggaac ttaatgtagt 60
actacatata tgtttgaaa agtctgaaa gttggatgct gtttctgatt atttcttttg 120
tcattccagc ttttgcaagg aattcaaata gcttgtaaaa gtagtagtcg aatatatgcg 180
caagtcttcg gatgaaatga ttatctatgc ctgttctagt cagttggaaa ttggtttgaa 240
ctggttccat cagtgtcttt ccagaattgt ttctctaaac aggccaaaga aaggttccaa 300
gtcttcttct tcgagtgtag tcgatcagaa caaggaacga ccagtgcctt ctatcgagca 360
cctttgggat agaaatgaat tggcacatct gatatggact c 401

<210> 5502
<211> 417
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-067-Q1-E1-H6
<400> 5502

tcccggtcgc acccaagcgt cagtgaggag gagggtgtgt ctctttgcct ctccaaaggg 60
actttatttg agaagattct tctctacaga atatgattat acaggatgaa ctggaagaga 120
atccacagga ttgtcggctt ccgaacaaga agccagagag aaagtaatac gtttgtatcg 180
atatgcgcta agtagtgtca aagatatctg caaacactat cgttttaaatg aaagcaaaga 240
agatatagct gcgtgtattc gagatttatt tgaaaggcat agacatgttc aagatcgaaa 300
gcttattgat atgttggtgt tcaaggagcg acaggacata gacgaagttc gcgcccagtg 360

gtaaagtcct catcaagttc tcaactatatt aagagcattt gatgaaaaga aaattaa 417

<210> 5503

<211> 222

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-H7

<400> 5503

agcccacgcg tccgaaggac tagaagaggt acggaattca cgaggaagga gcgtgaagga 60

aggaggaatc ccaagtaatc gaggaagaaa aagcttcggt gaaagcgtga acggattttg 120

tacacactgc ccgtcaagtt ctggaagtgt gctaggaata agcaggagaa gtagaagaga 180

gtagggaaaag aagaaaggaa gtgaagacgt aagacgtgaa aa 222

<210> 5504

<211> 391

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-067-Q1-E1-H8

<400> 5504

ggctcgaccc aagcgtcaga aggactagaa gaggtacgga attcacgagg aaggagcgtg 60

aaggaaggag gaatcccaag taatcgagga agaaaaagct tcggtgaaag cgtgaacgga 120

ttttgtacac actgcccgtc aagttctgga agtgtgtctag gaataagcag gagaagtaga 180

agagagtagg aaaagaagaa aggaagtga ggcgtaagac gtgatacaga gtaggaagaa 240

gagagaagag agctagaaaag gaggtaaaag aagagtaaaa ggactagaag aggtacggaa 300

ttcacgagga aggagcgtga aggaaggagg aatcccaagt aatcgaggaa gaaaaagctt 360

cggtgaaagc gtgaacggat tttgtacaca c 391

<210> 5505

<211> 445

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-A1

<400> 5505

ccggggccgac ccacgcgtcc acacccaact agtagaagaa tatggtggcg tttacttgtc 60
 tcccagactg tcgttggtta gagacttctc gattctccag atgtgccaaa gccaataaccg 120
 tctcggttgcg acgtagttcc cagtgttcac actcttggaa gagtgtttcg atgaactaca 180
 gtccctattc gataactacc gacaagtcag aaggacatat tgtccccggt actttttcaa 240
 gatttgagtt tcttgaaggt cgagtcaccg gtccaaccgt cttgaaccct agcatacttg 300
 actttacagt gtctaagtgt tcagatgctg cctttggaga atggagagca ttatcggtt 360
 caagtagagc gaaagaactg gaacacagaa gaaacgtcac caaagcgaca atagaaagtc 420
 tcaagaggac tcctaacgaa aagtc 445

<210> 5506
 <211> 214
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-068-Q1-E1-A10
 <400> 5506

aaaaaggcaa atacgggaaa gcagtaaaag aagaaagaga aaggaaaaaa ctgagtatca 60
 ggaagaaaag agggagtaga tgaggaaaga aagatcaagg aagtaagagt aagagaagga 120
 gtaatgtgaa tgaaagcagg aaagtatttg aagaagagag tgtaaagcgc gtaccttttg 180
 cataatgtcc cagcgagtga aagaggaagc aaaa 214

<210> 5507
 <211> 223
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-068-Q1-E1-A11
 <400> 5507

cacgcgtcca ccaacgtaag acgtgaagag gtacggaatt cacgaggaac gaccgtgaag 60
 gaatgaggaa tcccaagtga tctacgaaga aaaggcttcg gtgagagcgt gaacgtgaat 120
 ttatacacac tgcccgtaa gttctggaag tgtgctagga ataaccagga gaagtacatt 180
 agagtaggaa aagaagaaag gaagtgaaga cgtaagacgt gac 223

<210> 5508
 <211> 342
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-068-Q1-E1-A5

 <400> 5508

 gaccacgca tccatacaag ctctgtacta gacgctttaa acattactaa cgacattaat 60
 gctattgaag gtctatcttg gatcaacttt gccttttagcc tttcgtttg tcgaattgct 120
 atagcagatg gtttgttggg tgggttcaaga agtgcaggct cggggaaaca aaatactgga 180
 tatagtaata atgctgagc tgttgggtac ttgtgaatac actactgtat catgttgtgc 240
 ataacatact tcgttgtttg ttacacagat tgtattgggt cagtgtacta atacttagct 300
 tcacatcagt ttcgaattta ccgcaaaaac cctgacgtta cc 342

<210> 5509
 <211> 445
 <212> DNA
 <213> Cyanidium caldarium

 <223> unsure at all n locations
 <223> Clone ID: LIB190-068-Q1-E1-A7

 <400> 5509

 gaccacgca tccaggcgtc cagtatgaaa ggagaaacga gtgtagcact gtctagtcgt 60
 ccaactcagc gaaacagcaa taactgtgaa aatgcagtaa actagcagta ggacggaaag 120
 accccataat tcttgactag atagggtttag ggaggagaga gaatcatgaa gtagaggagg 180
 tggggtaaga gatgaaagac cactgcatga ggataaggaa tctaactgag taaggaaaat 240
 aagcttaagc tagtttggct ggggaagtaa agcctaagaa agagtaaatt aggcaagcaa 300
 aggcatgaga gaagtataat agcagaagca tgcttgaaga aaaagtaaga gatttcagaa 360
 agggaagaaa agtcagctat agagaacagg tgaaggagaa ctcanaaaga cgagagcacc 420
 gaacgatcga agaagaaact ttggg 445

<210> 5510
 <211> 262
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-A8

<400> 5510

aattcgcggg cgcacccacg cgtccatgta cattcaacat catcaaatgc caaagggagg 60
aaagaaagat tcttcaaaga aagaagccac aagtaaact gcagcagcag atgctacaaa 120
gacgacagaa aagtctggtc cggaagccaa gttgaaggga actggtgcaa agaaacaata 180
aaaagttgac tatgcatgtg cagtcctgtt atgttttgtg agttctgttt gatagtttcc 240
agctattctt ttggtagtga at 262

<210> 5511

<211> 443

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-B10

<400> 5511

acgcgtccga caacgcgtcc gccacgcgt ccgcccacgc gtccgcccac gcgtccggtg 60
gacgaccgca agttcttatg atgttggaac gtttcattag ttatattcaa cgttttccag 120
gtatccattg ggctactatg gaagaagttg cgcagggttt tagaagaaga caaccttttc 180
catgtgctta gttgcataaa gtttatttct gaatgttgaa caacttccat atggatcaaa 240
aaaaataata tctttaatca actgctccaa acttgatatt atccgtagc atgttgcaaa 300
ccacgttctt caaaaaagaa atgggaggcc ccccaaagg tttcacctg atgtacacgg 360
aaatccaacg ctaatacccc cctaaaggtc cccctaattc tcattcaagg gccgtttttt 420
taaaatttcc ggactggaaa aac 443

<210> 5512

<211> 431

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-B11

<400> 5512

acgcgtccaa caacgcgtcc gccacgcgt ccgcccacgc gtccgcccac gcgtccgcat 60
caagttgtgg tcgttgaatc gacaagaaat gataacaacat ctcaaagttg ccgatgctgg 120

tagtttggtta tcttttgata tttatgggaa gcattcttca tcagggtatta ctagcggtatg 180
gattggagga agcaagaaga tacttggtttt attggagtgg gatggacaca agttgaagga 240
agagtatcga caagttgtat tgaaaaggag tggattggga gatgtcggtg ttcgacaaga 300
tgaacgtata ttggcagttg ctcatgggga tgccaaagtt cgattatatg aaatacaaaa 360
caactttaga caattagcaa cgttacctca cgaccaaagt ggactgcgca tacaatttgc 420
acctcgagac t 431

<210> 5513
<211> 391
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-068-Q1-E1-B5
<400> 5513

aattcccggg tcgaccacg cgatccaatc agtttacgga tgacacggta cgttccttac 60
atgatgcaat tatgattggt aagcgtagct tgaagcattc caaggctgtt cccggtggtg 120
gtgctgtaca aatggtgctt tctaaacgtc gtcgagacta ctccagaact attcatggca 180
agtcgcaact gttaatctcg acttttgcag cgtctctaga aattattcca cgaacgttgt 240
gtgagaatgc atggtttagat gcaacagaca ttctgaacaa acttcgagcg atacacgcga 300
acaatcttcc ctatgtacgc attgatttga gcatcggcta tctatgtgac acgtggaaaa 360
gtctcgtgtg ggaatcgtca ctagtgaagt c 391

<210> 5514
<211> 440
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-068-Q1-E1-B7
<400> 5514

acccacgcat ccagttgggt gataatgata tgtccttctg ccggttgacgt ggaagccatg 60
gagaaaaatag tcgacaaaga gtcaccattc ttaaataaag atgctcgtcc agttatactg 120
gtgaatccca atctagttga tatgggagca acaggttttag gcttcaacgc aagacagcta 180
agacaacgct tattgagcac gtttgaatcc atctacttcc ttcgagtgtg ttctgcggga 240

gttgtggttc gtcagtatcc, ctttgagtgg agtatttggg ttgaaataac caacgaagac 300
 gaaaatactt cttccgactc tccctacagg tatatatatg aaacgtttcc cacgtcttac 360
 tccttcacaa tgtaggttg ctagattggt ttcagaccaa gcctagtgat gacactattc 420
 aacagatatt ccgaaattca 440

<210> 5515
 <211> 423
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-068-Q1-E1-B8
 <400> 5515

accacgcat ccactttttg tagaagaatg aaactttcga gtgttttgac agaaggcgaa 60
 tategtctgt ttcagtggat agtttttctt ggaggttctt tttatggtgg ttggctgctt 120
 tattctgacc ataagaatag tgcagtttat gctgccagg aagaagcttt tattgctcaa 180
 gaaaggaaca aagaaaggcc catgagtga gaatactgga gagaattgca agaaataaaa 240
 cctagaaatt tggaagagtt gtacaagatg aaagaagaaa aggctcgaaa gagagcagaa 300
 aaatatcaaa ggtggaagga aaacctactt gggtttatttg gcgtcacgtc aagtccccgt 360
 tcgagtgagg aagatagtg ctaaacgaag gtcaactgtc caagtcgaaa ctttgttttg 420
 aaa 423

<210> 5516
 <211> 440
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-068-Q1-E1-C10
 <400> 5516

acgcgtccga caagtgctat tcaggataat gacttgggag ttgtatttgg ctgcgagaca 60
 tttggaaaag gtctcgta gaatgtcgat caacttccat ttcaaacagc attgaaatat 120
 accgttgga aatattatac tccgagtgg c gatgtattc agtcctcaag ttattcatcc 180
 gatcatgaaa gactaaagat aacagctatc catgaaagaa aggtatttca aacgaagaat 240
 ggacgcgacg tattggacaa tgggtggaatc gaaccggata ttccgtggga agaaactgca 300

attcctgaat ggagacgctt attacatcaa caaggattgt tgttttatatt tgcaaatgat 360
tatgcagcta cccatccgaa aggaataggg cccgattttt atgtcgatga tgaattattt 420
gcacagttta caaagtatgt 440

<210> 5517
<211> 406
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-068-Q1-E1-C5
<400> 5517

attcgcgggc cgaccacgc gatccaatca gcttacacat cacacagaac aagggtggtg 60
gtggatggag cgttgactc tttttactga taatggacac cgactagggtg ataagtttgg 120
cgtagatgct gatggcacac cttggtcgga gtggtggata gaagaggagt tgttactgc 180
aaaggaacaa ggtttgagtc ggcacatgaa gaaagtgtgt caaaagtggg gactaaatgc 240
ataacgtgaa cgttggcatg aaacttgga agtatacact aatggaaagg ttgaaactac 300
gtatcgctta gatagagcca attcaggcag ttgttgaaca tacgaacttg gcagctgtgt 360
ggtagtaatt ttgaagatac ctatttctgt ttgttgtaaca atttca 406

<210> 5518
<211> 387
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-068-Q1-E1-C6
<400> 5518

attcgcgggc cgaccacgc gtccagtgga atattatcat acgaaaaaat ggaaggagag 60
gagatggacg aagaagacga gatggacgaa gaagacgaaa tggacgaaga agacgaaatg 120
gacgaagaag acgaaatgga cgaaaaagcc cagaagccaa gataaggtat caaagtaaag 180
aaagaaggaa aaggagaaga agagagggtg ggcttagaag cagcaaacca gagaggaaag 240
cgttaaagca tgaaagaaaa gaaatccgaa aaagaagaga aaaaggtaag aaagaggacc 300
gaatcagggt aagaggtaga ggagcaagaa gagaagagag aatgctgggt ggagtagcga 360
aacaagagaa gggaagtaaa acacaaa 387

<210> 5519
 <211> 310
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-068-Q1-E1-D3

 <400> 5519

 aaaaaatttt cgacgctcat ctgatggaga aggctatgaa tttcgtgaag aaactgcaga 60
 aaaattgttt catggtgcaa gtaacatgtc ttcatacatt cttcataat tgttcaagat 120
 tcgctgtatt cttttatata gtagagaaca caagtttcaa tcgacaacca tgcgaaacta 180
 tcccgatagt gttttatagt tggatgaatc tatattaagt cttaaggact atgttctgta 240
 taagaccatt tttcgacaag tgtgaaaagt aaatggctag aattgtttct tttcaaaaaa 300
 aaaattgtac 310

<210> 5520
 <211> 398
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-068-Q1-E1-D7

 <400> 5520

 attgcccggc cgaccacgc atccaagcga acttgctcgt gtagtgcac cgaatcaaca 60
 aaaagcagaa gaatgggcaa aagagaatca gaaggaagga gatttgaaag ctttatgcaa 120
 ggacaaagac ttcaagaaag ctgttttaga tgatttgaag aaagttgcga aaagcaagtc 180
 cttgaaagga tttgaagttg tgaaaaatgt gtatcttgaa ccggaagcat tttctgttga 240
 gaatgatttg gtaactccaa cgatgaagct gaagcgtcca gcgttgaaca aaaagtatga 300
 aaaggaaata gaaaaaatgt atcaagaatt gcgcaaatct cgaacataga acgatacttc 360
 tgacatttat aaaggttcca atttttttcc tgtaaaaa 398

<210> 5521
 <211> 288
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-068-Q1-E1-E10

<400> 5521

gaaggatcta atatccaatg aaaaccgtta tttggtgtgc gaagagggaa tagacttact 60

cgacaagatg cttcgttatg atcacgcgga gaggataact gcaaaagaag cgatggatca 120

tccatttttt gatgaagtta gagccaagtg cttatcgaag gaagagaact attctatgga 180

taatgacagt actacgacta ctacaagcgc aatgaatact gaaccttgct gatttgatca 240

agtttccttt tctctgaata aagagacctt ttcctatttg tgcaaaac 288

<210> 5522

<211> 429

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-E11

<400> 5522

acgggtctagt attccccgggt cgccccacgc gtccgacaac gcgtccgtga aaatcatggt 60

agacactaag ctttaaggacg gtgctagtgc tgctctttgg acttgccgcc tattttctcta 120

tacagttgtg ttagcatttt cagcaacaat aattggactt gatggaagga aggcagataa 180

catatggaac gatgccctat attatcatgg aaaagtgggtg aacttttgtg catattcggc 240

ttcgtctggt tttgaagggtg ggcaccatgg cgcattgtaa tatgtgatgg ctttggtctc 300

tatcagcttg atttttagttt tctttctttg gttggcctcc tttgtcgacg cattgtatcc 360

aattttctaca gagttccggt ttgtggaact tggatatcaac atattcctta ctatgtggtg 420

gttggttg 429

<210> 5523

<211> 436

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-E7

<400> 5523

gacccacgca tccaccacg cgtccgggac aattcggata tcaccgcggt tattaacaag 60

agttcggccg attacataga gagtttggtg atggacgcac gacaaaaagg cgcttcacag 120

gtttgtccct acaaacgaga gggcaatttg ctctggccta cagtcttcga tcatgttcga 180

gaagatatga agatagcttg ggaggaaccg tttgggtccg tattgcctat tgttcgtgtg 240
aagagtgcgg aggaagcagt tgagtttgcc aataggagca ctatgggctt gcaaggctgt 300
gtatttacca acgatattga aaaggctatt cacatatccg atgagctgtc aaccggaacg 360
gtgcaagtga atggacaacc agcatgagga cctgaccatt ttccattcca acgtttttaag 420
gattcgggat tacgtt 436

<210> 5524
<211> 408
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-068-Q1-E1-E8
<400> 5524

agtacgatct agaattgccg ggccgaccca cgcgatccac ccacgcgtcc gcccacgcgt 60
ccgcccacgc gtccgagaag agaagagaga atgctgggtg gagtagcgaa acaagagaag 120
ggaagtaaaa ggtaagaaag aggaaagggt tacgagagaa ggaagtagaa agaagagagt 180
gtaaggcggc gtcataatag aaatccgaaa ggagtagaag aaaagagaga gaagaaagaa 240
aagaagagaa aagccgtact gaagaccgac acaggctactc gaggagaaag gagaccata 300
ttaaggtagag agaatggacg ataagaaaga ggcaaatacg ggaaagcagt ataagacgaa 360
cgagaaacga aaaacactga gtaccacgaa gaacagaggg agtacatg 408

<210> 5525
<211> 440
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-068-Q1-E1-F11
<400> 5525

accggtctta tnttccggg tcgcaccacg cgctccgatag gatactctaa cctcgatggt 60
ttatcacttc gactcgggtat gctgctctgg atactcgttg atgaatattg taaactat 120
cctgggaatt ttgtattcaa attctgtgct cgctcactct tggtttcttg aacaggtcga 180
gaacttgtaa cggttccata agaaatggaa tccaacttgc tcatgaaatt gtctttccat 240
ttctcgctcg tagaattttc agtacttgcc aaagaagcct ttgtctcgga aactgaatgc 300

tcctttcctg atacattttc aaatgaaacc tcttccttct tggaagtaat cgggtgttct 360
aatgatgtat tcaaagatgt attccatgtc gtagaagact gctttccaac aaaagacagt 420
gaagaagaat tggacggtgt 440

<210> 5526
<211> 397
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-068-Q1-E1-F2
<400> 5526

ccggggccgac ccacgcgtcc aaccacgcgt ccggacactg caatgtcatg agtcatgcaa 60
cacaaaagtg tttattagta gacatgtaac tctcaaggtc caagaacaaa tgacctttta 120
ggagcaacac agaagcgaca ctcgaaagca gttaagttgt ttgtgtgcac tggcctctat 180
tcttgtgcac tttgttgaat ggccgctaaa gcactatctt ccttggcaga agccttctcc 240
tgctttttcg ttggcgatat gctcgacgca agttcatccg attctttgct agaatcgact 300
gctacatgct gcttccctaa tttcgtcctg atccatgttt tggtttgact ccagttgtat 360
tttgccaatc caattaaacc ttcatcgaat atatttc 397

<210> 5527
<211> 435
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-068-Q1-E1-F4
<400> 5527

ccggggccgac ccacgcgtcc acccagcgt ccgcccacgc gtccggccat ttggtgcaga 60
acactttgga gcagtatcgc cagtgcagc ggggaaaaca taagaagtcc aaactctttg 120
gactctacgt tgctttctat ctagactggg caatgtaaag aaaactgaga gtgtcaagtt 180
acccattttt gtgggtagag tgacaaggga gttgcgatac caagatggca tgtctacgca 240
ctcgacgcaa aaagagaaag actagggcaa aagactgaat aagattcgat cgagagtaag 300
cttgcattgc accggcaacg tagtaaccgc tggttcgtct gttacacggc cagctgtcgt 360
gtcgttatct ctcccgcgag actagctccg gttttacaag gctaccaagc catcttgcaa 420

tcgtctagac acctg

435

<210> 5528
<211> 454
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-068-Q1-E1-F6

<400> 5528

aattgncggg ccgacccacg catccacaat tgcgtgtgag aagggacgaa ggaagaaaga 60
atgttgggtat taacaatagg agattttcat agtatggata aaatcatgtg tattgtgttg 120
ttttaacgct tctagttcct agtcgagtgg ctgcagtgcc tctcaagttt cgagaacttc 180
tcgttccagg aaaaatacaa cgagtattat gtactgtaag aaacacaaga agagatgcac 240
aaagttttca tcgattttacg tgattgtaaa agggaaactt gtgtaacaaa gagacagaag 300
agttcctcaa agttatttgt cctcaagtac agattaccaa aggtgatatg gacaacgtga 360
gtatatgcc a cctacggaaa atgtcaagtt ggaaacttta taaaaacgtt cagtcagaat 420
atccggaacg tttgtgtaac aatgtgggac aact 454

<210> 5529
<211> 347
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-068-Q1-E1-F7

<400> 5529

aattgncggg ccgacccacg cgtccacca cgcgtccggg caatgcaatt tgccaaacaa 60
tatgaagatg ccgtttttgg tttcatttcc atgggttgta ttggagaacc caactttatt 120
tattttactc ctggagtaaa gttggaaaaa ggaggggact cgctagggtca acaatacaca 180
gactctaaga cagttatagg cattcaaaag agtgacattg ctattgtagg aagaggaatt 240
attcaagcct ctgatcgaaa agaagccgca ttgacgtatc aaaaagcctg ttgggatgct 300
tatgtccaac gaattgggaa ataaagcgat tgttgctgtg tggttgc 347

<210> 5530
 <211> 450
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-068-Q1-E1-F8

 <400> 5530

 attcgcgggc cgacccacgc atccagtcac tcatttcgaa taagatggag tgggttcttc 60
 aggctcgctt agaaagtgtt tgcgtccaaa gagacaaaagt ttttgaacaa ttggccaaag 120
 ttcgagagtt gagaagaaat cttggcgctc ttctttcaaa agcaccttct cacgtacagg 180
 taaacattgg ctgtgacttt tatcttgacg gcgagttgga tgacgaaggt cttttactta 240
 ttgacatggg aaagaacgct tttgtggaaa tgcaaccaca agaagctcta gagactacaa 300
 tactgagaga aacttggtct gagaggctcg gtgaatatta tacgaaaagg atcggagagc 360
 tggaagggtt gttcaagta tatcgtgtgg aataatagaa gtatgtaatc agtattgtcg 420
 ccgcaatatg tatataacag ttttgttgt 450

<210> 5531
 <211> 262
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-068-Q1-E1-G5

 <400> 5531

 acccacgcgt ccgccttatg ttatctctac actgcagcca tatccacctt atacgccgta 60
 ttattcctcc agttattcta cctatacaca agacagtgga ttctactttc ccaattattc 120
 aggacctgtt caaatctaac ctctgttttc ctaaagtctg gaaccaatga gagtttcctt 180
 ttccgataat gtgttggtt ttgtttcttc tttttcgata aacttctgtg gtttggattt 240
 gttattaaaa ggttaagtac ag 262

<210> 5532
 <211> 443
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-068-Q1-E1-G6

 <400> 5532

aattcgccgg tcgacccacg caaccagtgc agcatgctcg gggaaaacct ctactggtgt 60
atctcggacg gtaactagag gagtgaacct aagtggagca gatttttcgg gacaggacct 120
tagtggtgtc agttttcaac agagtctatt aagagaaacc gactttcatg ggtcgaaatt 180
ggtttcagcc tccttctttg gagcagagtt atcctatgct aatttggaag atgcggatct 240
ttcagaagct aatttagagt tggcaaactc tcgtaacgcc aagcttaaga atgctatatt 300
acgaggagca tacttttcag gaaatacgcg ttagagaat gctgatatcg aagggtgctga 360
tttttcccaa gttattctta gaaaggacca aaagaagtat ctctgcagta ttgcgaaagg 420
gataaatagt catactggcg tcg 443

<210> 5533
<211> 466
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-068-Q1-E1-G7
<400> 5533

ggtaccgtat ctagaattcg ccggtcgacc cagcaaccg cccacgcgtc cgaggaggag 60
gaggaggatg gcagaagaga agacttgggc aacgagatca tagaccagga gatgaaaaag 120
ctgctattcc gtggataccg gatgatgatg atgattgtag tttgcgtgaa agagaagaga 180
ctgcttggtg tgcccaatgg aggtggattg cgtccatctc caacgaaatg agaaacaacc 240
cgcgttggtt caagtgcttt gacaatcctt ttgcaggtag tagacctttt tgtagcttga 300
aagagttgga agatgcgttg ggtacggaaa aattgatgct cgtgatgcag acgtttcatt 360
ggctgaccaa ccagttgccg caacgaatgt gccctatttc gcctagtagt agcangacga 420
agagaaagcc gagtctgttg tttttcaaca actagaattg gttggc 466

<210> 5534
<211> 193
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-068-Q1-E1-G9
<400> 5534

accacgcgtc cgcgtattat tcacaaatag ataaggaagt agtcgagtct atggaagttt 60
 ccgagagtgt ttctgggttt cctgcagaga cggagaagcc ttatagaatt ccaaacttta 120
 caccattgac tcaagacgac tttagcgaag acttgtgggt ttccatggaa taaaagtata 180
 gttttttgta aaa 193

<210> 5535
 <211> 338
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-068-Q1-E1-H11
 <400> 5535

aaaatctcac tggtgcttgt attatttgtg gcgtatttta tggacgttgt gcgatgattt 60
 ttggtcttgt atttcatcgg atgcataaac gatggagtcg tctggtttcc atggatatgg 120
 atgaagccac gatgtaaata ggagaaagta taaaacaata atatcaggac gtgaggatat 180
 cgataatata atatttggca atacaaaaga caaaataagg taaaataaaa aaaaaaggaa 240
 gaagcactac aaggatacaa gcttacgtac acgtgtagcg ctacagtaat aacttcttcc 300
 agaatgacac gtttaaccat gattcacaaa aagggggg 338

<210> 5536
 <211> 440
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-068-Q1-E1-H6
 <400> 5536

ggccgaccca cgcattccaca tgcaagtagg taaagcgaac gggtagtaaa agaggtgtga 60
 aagagtggaa gaacatgaaa gcacagaaga atgtaagaaa tggtttagagt aaaaaccata 120
 aaggaagtaa aagcgggaat ctgagaggag gaaagccaca ttggaactga gaaaagggtcc 180
 aaacaagaga agacacagta aatgaggagt ggagtaaaca gaaaaggaag taaaaggagg 240
 gaatgaaggg aagttatggc aaaaacacgt gccagcagca gcggtaaaac gtgtgtagca 300
 agcgtagagc agaagaactg ggtgtaaagg tcgagtacta gagtaagtgt aaaagggaaa 360
 ggaaaggaga gaaagaggaa agggatgaaa tgcagagatc tctagagaaa cgcaagacag 420

aaaagaaagg aagacacagt

440

<210> 5537
<211> 446
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-068-Q1-E1-H8

<400> 5537

attcccggtt cgaccacgc atccacggac gcgtgggcca agaagagaag atagagaatc 60
cgacgcgacc ccttctgcaa gtgtttcctt agataatgga aactcggttt cgaaagatat 120
gaaagatatg ggaaataaag aggtccatcg agatttttcc agtactgacc aggaacaagt 180
tacattgcaa gagcgtgttg gaacatttca tcgagtggaa cctccataga ttggcgagtc 240
tttgagggga ggaaatgcac cagctcatgt ggagaatgtc gttgaacctt gcaaccactt 300
ttcttatcca agtttctatc cagagaatat gccatttccc acaggatatc ctctctctcc 360
tatgacttca ggagtatggc catatccgta ttttccagtt ccgtatttcg gacaatcctt 420
tgcgcctaca aagaatgact atagca 446

<210> 5538
<211> 242
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-B1

<400> 5538

ggtcgagcca cgcgtacgag acaggaatct tttagaggag ctgagcagtt ggtacggtga 60
aagcgatcct tctcagtggg tgcacgcaca aaatctccat ggtaccaaaa cgatacaaca 120
tttgcaacag gttctttctt ctcaaccggc agaccgagaa cttgggaagt gtgcaactgt 180
ttccgaggaa gacatgggac aactagaggg tcagcgctct tgtgaaaaga ccagtgggaa 240
tg 242

<210> 5539
<211> 435
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-B10

<400> 5539

tcaggaattc acgggtcgac gcacgcgtca gctgtgagggc gtggtgcgaa gcgttgctcgt 60
tatcgtctat ggcggtatatt gaaagtgata tagttgggtcc tgcaattcac ttacgaaaa 120
agtataattc aaggaggcgc tacaaggagt gcatttcgtg ctttagtgct tcgggtggta 180
aaccaggggtg gttcttttga cataagccga aaattactcg caacgggcta tacgactgat 240
aagggtatga agaccaataa tgggtgctgtt cgagaaagtg acttttacga gagagtcttt 300
tcaagaatag cttcaaagcg ctctgacttt tggaaagaag tttctgtaac cttagtagtc 360
tctaccattg acaccgagtc ggataagggt atttcagtgt ggaacgcgtt tgttaccaa 420
gaccgtcagt tgttc 435

<210> 5540

<211> 448

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-069-Q1-E1-B12

<400> 5540

aattaacggc tcgacgcacg cgtcagagcc gatactcgct ttgagtctat tcacgtcctc 60
gtattcgtct tggtttcctt atactgtcct aagaaaaaat cattctatta aacaatatcg 120
tggagtcgct tcagaaacgt cgtaaaataa agacagaagg catggcaggg gtgtcacgtg 180
caaagcttcg tcttatgaca gacttgaggt tgatgaagca agagcctcca gagggttgta 240
gcgctagtcc tttgagtgc gacaacttgt tcgtttgggg tgccactatt tttggcccc 300
ctgatactgc ctgngaagga ggtatctaca ctttgcgact aacttttagt gaagagtatc 360
ctgataaacc accgaaggtc cgttttactt gtgatatgtt ccatccgaac gtctaccaag 420
acggtaccct ctgtttggac attattca 448

<210> 5541

<211> 214

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-B2

<400> 5541

ggtaacgggtt aggaattccc ggctcgaccc acgcgtacgc ttttttggcg cgcaatgaag 60
agccgatttg cggttcctat gcagttaaat gcgtaattac aagttgtcac gagatatgaa 120
aaagggacaa tgctgtttttt gggaatatgc tgtattttta aacattgggt agagctagtt 180
tcgaatacta aaaagtagtt gtgaaactgt tgtg 214

<210> 5542

<211> 294

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-B3

<400> 5542

ggccgggtcag gaattaccgg ctcgagccac gcgtcaggta caatgggaga gtccatgtcg 60
gagaaggaaa tagtttcacg ttatcagaca ctgaaacaac aaattcagca aataatgtta 120
aaaatagaag agtttgaaaa cgacagaagt gaacaagaac ttgttttgaa acagttgctg 180
cctttgaacg aacatcgtaa gtgttgagga caacgtaggt actgttccta atgagcaaac 240
ggttggacaa gtacaaccag tgttggcagc cagcagtaaa gacttgcagc aagc 294

<210> 5543

<211> 448

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-B5

<400> 5543

ggtaccgggtt aggaattccc ggctcgaccc acgcgtacga aagatatcaa accacaacaa 60
caacggagaa agaagaagat ccctctccct tgggaatgct ttccacaagt tttccttctt 120
gtgagaatga aatgacatct agtgattggt tcggtgggtg tggttgtggt ggtggcatcg 180
acgataaatc tcgaatagta tacagtatgg aatggaagat agaattgatg cggcattgga 240
cattttatga gtccttgatg cacagtcggt tgtttgttag tcactttgct acttgggaagc 300
agcaaggtea acgagatggt ttagagttgt tggctatatt aggaattccc ttgaaagatg 360
ccaaacagac atggaatcat atgaatgtga gatgtaaacg tttgttgcaa tcgaaatttc 420

cagttgcatg tcgtcatttt ggattgta

448

<210> 5544
<211> 378
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-B7

<400> 5544

gaattcccg ctcgaccac gcgtacgcc acgcgtccgt atatcattcg ttatgccttt 60
tccaaggagt tttgtggtga agagtatctt cctgacgata ttctttggag acaaaaagaa 120
cagttttcgg atggcgtggg ctatagctgg atcgatgggt taaaggcgta ttgtgaaaag 180
gccgtttccg atgcagactt gcaaaatgcc gctcagcgtt ttccgcacga tactccaaca 240
accaaagagg catatgttta tcgagctata ttcgaaaaac attttgggaa ttgcaaggca 300
gtacaaggtc ttcgtgaatc agttgcaaga tgggtaccta tgtggagtga cagcacggat 360
cctagcggtc gtgcacaa 378

<210> 5545
<211> 333
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-C6

<400> 5545

cggtctgacc cagcgtacg cccacgcgtc cgcccacgcg tccgcggacg cgtgggttgg 60
tctgaatctt ggagtaagca caggatcgac attccgtacg ttgtttgctg ctctcgtatt 120
tcatcaattc tttgaatgat ttgctgtctg tacgaatgtt tccgaagccc actttggcac 180
ttgaaccact atagtaatgg tactttgcta ggctttggaa actccaatcc gtatatctat 240
tggatttggg attgcacaca cttatcatga aaactcctcg gcatcggtgt taacgagagg 300
cattttggat gccatcccc gtggaatttt aac 333

<210> 5546
<211> 447
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-C7

<400> 5546

ggtagcgggtt aggaattccc ggctcgaccc acgcgtacgc ggacgcgtgg gggaccaaac 60
agagtgcaca gaagagatgg caaggagaat attgggtgct tatatgggag atgccacagt 120
ggcaactctg ttcagtatca aaatgttggt ctatcttact atcatgggtt tctccataac 180
tatcttgggt ctcatgggaa agaactcgga tggatatttg atacatagtg tgccacctgc 240
agatcaatat tgtgcataca agtcttcatt ggaggtgaac caccatggaa ttgcttecta 300
ttgcaagtat atcgttgccg tagctgctat tgggttggtt atctcgtttt tccagttttg 360
ctacgggtctg ttgggtatct ttttcaagtg gcaacaaaac gttgtggtaa attaaggatg 420
cttccaatct atttttctgg gcttgggt 447

<210> 5547

<211> 425

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-069-Q1-E1-C8

<400> 5547

ggtagcgggtt aggaattccc ggctcgaccc acgcgtacgc agaaaagctg taaaatagtg 60
gctttaataa gtgaattgaa agctattgaa cggtgtcgga tgggatcggg tgactacgaa 120
ggactcaaga ctgtaggaaa gacagttatt ttctctcagt ggacgagata tttagatatt 180
ttggagttgg cattacaaga caatggcttg cattatgtcc gacttgatgg aaagttgact 240
tgtaagcaaa gatcganagt cntgtccagt ttcaggttgg accagtcaga ttccatgagt 300
agtgcacaaca ttttgcttgt ctcttgaaa gctgggtgag ttgggtttaa tcttaactct 360
gcaagtcagg tgtttatatt tggaccatgg tggaatcctg cagtggaaag aacaagctat 420
cgata 425

<210> 5548

<211> 316

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-D1

<400> 5548

acgcgtaaga cgaagacgac aacaactcat ccaatacacg cacctgccaa ctgtcctgga 60
acagactctg aaaaggtgga aaaagcagaa gcttgtgagg gttgtcccaa tcagtctcta 120
tgtgctagtg gaaaaagtac tcaactggac cctgatatac aactcatagc ttctcgctct 180
gcgaataata agcacgtaat tttgatatta tctggtaaac gcggtgttgg aaaaagtaca 240
tttgctaccc aattggcttt tgcgttggca agtagagaat attttgtggg tttactggat 300
gtagatattt gtggac 316

<210> 5549

<211> 443

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-D10

<400> 5549

aattaccggc tcgaggcacg cgtaagcaat agtgggaatt ttgtggagga gatgcctttg 60
gtgtgtccgg gacatagtcg aggtattgta cagttggaat atagtccggt cacagtagat 120
ggatattttc ttattagtgc ctgtttgggt atgtttatgt tcgttgtctt agttgctcaa 180
caaacctgtc atagatggct atccaatgtt gcgagacggt gcaacgggca actggttggg 240
aacttttcat ggtcacaagg gagcagtgtg gtctgcttcc ttaaacaata ctgcgacatt 300
agcagttact ggaggagcag actttacttg tagaatatgg aacgctctca atgggctttg 360
tttgagaact tactctcagc cgcacatttg ccgagctgtt tctttttcgg aggatagtta 420
caaagtgctt gttggaggga ata 443

<210> 5550

<211> 321

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-D12

<400> 5550

agcacgcgtc agccacacg tccggtctca acaagtttac taccaatgcc aaaagtataa 60

ggaggttact cagcaagaat gccagtacgt ccaagagtcg tattgtgtcg agtatgaaga 120
 atgtcagcaa gttacccagg aagtttctcc ttcagaaatt gtctactacg gtgaatcttc 180
 ttctagcagt agttactact actagaacac ttgtgaaatg cgcaaagtcg caaagtagag 240
 tgttcttttt tgaataaact gtgacttttt gtcaaagaaa acaaataagg gggaaaaccc 300
 cagtaaggac gcctataagg t 321

<210> 5551
 <211> 354
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-069-Q1-E1-D3
 <400> 5551

cacgcgtccg cccaagcgtc cgcgttaaag catgaaagaa aagaaatccg aaaaagaaca 60
 caaaaacgta agaaagagga ccgaatcacg gtaagaggta caggagcaag aagagaagag 120
 agaatgctgg gtggagtagc gaaacacgac aagggaagta aaacgtaaca cagacgaaag 180
 gtttacgaga gaacgaagta caaagaagag agtgtaccgc ggcgtcataa tacaatccc 240
 aaacgagtcc aacacaagcg agacaaccaa agacaccac acaaccgccg tactgaacac 300
 ccacacaggt accccaggac aaacgacacc caaattaacg tgacagaatt gacc 354

<210> 5552
 <211> 367
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-069-Q1-E1-D4
 <400> 5552

ggctcgacc acgcgtacgt ccactttggt ttcgtccctc gtccctcgtc gtctcctcca 60
 acgagtacca aaacataaaa tagaaaatgg caactttact atccaaaaaa agaagagcag 120
 tagccgacgg tgttttcaaa gcagaactta acgagtttct gatgcgagaa ttgtccgaag 180
 agggatactc tgggtgtagaa gtgaaacca cgccgttgcg aacggaaatc gtgatccgag 240
 ctaccagaac acaaaacgtg ttgggagaaa aagggtccaac gattatagaa ctactgcgt 300
 tggtagagaa gcgattccgt tttcctgaac gaacagtgga actttatgcg gaaaaggttt 360

<210> 5553
 <211> 334
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-069-Q1-E1-D6
 <400> 5553

ggtaccgggtt aggaactccc ggctcgaccc acgcgtacgg gtcttccttg gtcagttagt 60
 gaagaagacc ttcgtgaaac tttttccaaa tatggagaag ttgttgatgc aagggttggt 120
 gttgaacgtg aaactggtcg ttcccggtgtt ttgggtttcg tatcttatgc agaaggttcc 180
 tccgtaaacy aatgcattgc cgcactggat ggcaaggata tgcaaggacg cactattcgt 240
 gtgaacaagg caatgtctcg tgaacaacgc gagagtggag gagactttcg tcgcggtggt 300
 cgtggacgat accgacgttt tcgttcgggt cctt 334

<210> 5554
 <211> 325
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-069-Q1-E1-D9
 <400> 5554

cggacacgtg ggcggacgcg tggcgggacg cgtgggacga cgcgtgggtt tcttggttagc 60
 agttgtacat tcaacatcat caaatgccaa agggaggaaa gaaagattct tcaaagaaag 120
 aagccacaag taaacctgca gcagcagatg ctacaaagac gacagaaaag tctggtccgg 180
 aagccaagtt gaagggaact ggtgcaaaga aacaataaaa agttgactat gcatgttcct 240
 gttatgtttt gtgagttctg tttgatagtt tccagctatt cttttggtag tgaataaaga 300
 gaaaattttt tatatttaca caaaa 325

<210> 5555
 <211> 416
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-069-Q1-E1-E11

<400> 5555

gcgtcagaaa aaaaaacaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaca aaaaaaagga 60
aaaaacacaa aaaaataaaa aacttacgta aacgtacatg aaacattcaa ttcttctgca 120
aaggtgcctc caaactttca tttccctcgc cgtcctttaa aaaaatcggg ccccccccca 180
aaggtttcca accttatttc ccgcgcaatc catctcatta ccccttttaa gggccgcctt 240
aatttcattc cagggccctt ttttttaaaa tccctaactt ggaaaaccct ttgttttctc 300
cccttaaccc cctttttctca atccccccct ttccccactt ggcttttctct ccctcggccc 360
cccccttttc cctcccaaac ctttttcccc cccaattgc caatggcccc tcccct 416

<210> 5556

<211> 442

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-E12

<400> 5556

aattaccggc tcgacgcacg cgtaagcgga cacgtgggcg gacgcgtggg ggaaattctt 60
ggagacaaag tggagaaggt ggtagtttcc gaaagacttg cggaatctcc atgtatcctt 120
gttactggtg agtttggttg gtcggccaac atggaacgta tcatgaaggc acaagctttg 180
cgtgattcgt ccttggaat gtacatgtca tcgagaaaga taatggaaat taatcccaac 240
aatgccatca tgcaagaatt gcgtcgccgt gtggaagcag acaagtcaga caagaccgtg 300
aaagacttgg tcaatttatt atttgacact gcattgttga cttccggatt ctctcttgac 360
gatcccaacg tttttgcctc tcgtattcat cgcattgatta agttaggctt tagcattgac 420
gaagatgaag tcacagaaaa ga 442

<210> 5557

<211> 449

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-E5

<400> 5557

ggtagcggtt aggaattccc ggctcgaccc acgcgtacga cgtgaatgga ctgcgaaagc 60

aacaacaaga gcagtagaga taatgcttca cacgaccgac aaaaagcgaa agatgttcgt 120
 ctttcgaaca tttccgcttc aaaagcagtt gctgacgctg taaggaccag tttgggtccg 180
 agaggactag ataaaatggg gcaggaagaa ggtggagacg ttttcatcag taacgacgga 240
 gcaacaattt tgtcaaaaat gagagtggag catccagcag caaagatgct tgtggatctc 300
 tcgaaagccc aagatgttga agctggagac ggaaccacga ctgtagttgt catcgcaggc 360
 tcgctattaa gtgcttgtct tactctactt gggaaagggg attcaccctt cattgatata 420
 ggatgcgttc cagtttgcag tggagaagg 449

<210> 5558
 <211> 446
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-069-Q1-E1-E6
 <400> 5558

ggtaccggtt aggaattccc ggctcgaccc acgcgtacgg aacgatccac caaaggggtg 60
 tgagttcttc cgtgcacaag ttattattct taaccatcct ggagaaattc atgcgggtta 120
 tacgccagtt cttgattgcc acacaagcca tattgcttgc cgttttgcag agttggagaa 180
 gaagatggac cgtcgctcgg gtaagacagt ggaagagaat cccaaggcta tcaagtcagg 240
 agatgctgct atgggtgaaga tgattccatc gaagccaatg tgtgtggaaa ctttactga 300
 atatcctcct ttgggacgtt ttgcagtgag agatatgaga cagacggttg ctgttggtgt 360
 tattaaggag gtggagaaga nagaagtaga aggaaagact acaaaggcgg ctgcaaaaagc 420
 gcagaagaag taatcttttg ttgctt 446

<210> 5559
 <211> 449
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-069-Q1-E1-E8
 <400> 5559

ggtaacggtt aggaattccc ggctcgacc cacgcgtacg gacttcttgg gtcagcaagt 60
 ttatgaacaa ctccagaaag tatactcgga tactgaaagc gttttgatga agttggatcc 120

tctcgcgaag ttgttgggaa gaaatcttga acgattatgg aggagcgatg ttcctatgga 180
 gcccgcgcct tcccagatgg atattgtttc caccagaact gatacagacg agatggaagt 240
 aacagagcgt aaaggagtgtg tctcagtacg acaaggagag tttgattgga tggaattctt 300
 gaaaacatat tgtgatttga cagagtctga agcaaggcta tgttgtgata cattgaaatt 360
 gatgagagaa caagagttta catcagttga tactgcaata ttagaacgcc tgggtattga 420
 agattcaagg actaggtcca aaattgttg 449

<210> 5560
 <211> 443
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-G11

<400> 5560
 aattcacggc cgaccacgc gtcagccac gcgtccgcc acgcgtccgg tcaatcttgc 60
 tgggtatggc gctgcaaata ttttacgtgg tgatgttcaa cagacgcatt ggcttgagca 120
 tgaagagtgg ttaaactgta cggagacaaa caaagttaaa gatgaggaat gtattttaat 180
 cgatgttagg aatcctgagg aagtacagtc cgaacctgta ccgaatgcac agaataattcc 240
 acttcgtgat attcgaagtc agcttgataa gttaccgaaa gaaaaggaaa ttgctgtggt 300
 ttgccgctcg gggcagcgtt cttatttggc atccagaatg ttaagtcagc tgggttttca 360
 tgtgaaaaat atttcgggtg gctttctttc ttatcgagat gtgaaggcaa gtgccgaaat 420
 tcgttagtgg acgttgaacc ttg 443

<210> 5561
 <211> 432
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-G4

<400> 5561
 cccggctcga ccacgcgta cgagcatgct gaccctacgc gcacttggga tttacagttt 60
 cttaccttgt caagtaaagt tgttttctgg acatggaaag aaattatctt ccaaataac 120
 acacaagttt cgggtaccata atatttgtat gaaaggttct ggaaggggag aggaagtaag 180

tagtatcgcg cgtttgcaac aacagagtag aagagttttt cttatttctg tggcgcaatt 240
 tgcgatattg ggattagtga gacccaaaga agcagtcgct gctgaagaga gctttgcaaa 300
 aatctggaca aggaggggtt ttaaaagctg gttacaatac tcccgaaagt ttaaccagtg 360
 aaacagttca aatcgatgcc gaggctatga aagacccgca agtaaaaaag ggactggaga 420
 atttgagagc tt 432

<210> 5562
 <211> 444
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-069-Q1-E1-H10
 <400> 5562

aattaccggc tcgaccacg cgtacgggcg tatatacaac tgacgaccga tcatctcctg 60
 aaaatgaaga aagcaagata cttgcagcaa ctggttccta tggatggctc aaaacattgg 120
 aaggattgtg cgaaaggcta gaagcatcct gtacagaaac cgaaaaccaa attagtgcaa 180
 cagaaaactc tctaaacaga gagccgccag agctcctttt gaaagtgtcg aagaaagact 240
 ttccgaaaca gcagttgacg aggcttcaaa tttccatgaa gcgattgaaa aacttttgtc 300
 gactggaagc tcctttgtcg ttggtacgaa agaagatcag cgtttgaaag agagttagct 360
 tctgaactgg aatattggat atcttgtttg aaggaagagt taaaaacgat ggactctcac 420
 atagagtcgc tcgagagact atct 444

<210> 5563
 <211> 446
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-069-Q1-E1-H11
 <400> 5563

aattcaoggc cgaccacgc gtcagcattt cggcagttgt acagtttcag ttcacttcgc 60
 attaaccatg ttttccagtt tttaaaacc tatacctggg gagacaagtc tccgaactgg 120
 agtgtacgaa aacagcagtg catcgtttcc caagcttccc tccttctcca agctttcgcg 180
 ttcgtctect tcttcatttt ctctgtcttc agtatcttcc aaaagtgtat cctccaaaag 240

tccgtcttcg aaaagattgt cttctccaag ttcgtcttcc aacagaccgt cttccccaag 300
 gtcaccttct agtcgttcat ccagttcttc agactctttg cctgatattt ccgccagagt 360
 tgaaaaatat ttctcgaagc acaagaagaa tatatttgaa gtgggtagac tggctgttag 420
 gttaaccaga gagtattatc ctaatg 446

<210> 5564
 <211> 341
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-069-Q1-E1-H2
 <400> 5564

tcccggtctg acccacgcgt acgcccacgc gtccgcttaa agatccagat cgaatttgat 60
 ccagaagaga aaagccgtac tgaagaccga cacaggtact cgaggagaaa ggagacccaa 120
 attaaggtga gagaatggac gataaggaac taggcaaaag gatatggat ctgcggtaga 180
 acatatgaaa gaagcagcac cgactgttta gcaaaaacac agcactctgc ataaaagaga 240
 aaatgtaaag cgcgtacctt ttgcataatg tcccatcgag tgaaagagga agcaaaaatc 300
 atgaacatct cagtatccag gtaagaccgc aagcaaatg g 341

<210> 5565
 <211> 364
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-069-Q1-E1-H3
 <400> 5565

gaccacgcg tacgcggacg cgtggggtgg aagaaagttt cgagaagaaa tgcttcaagc 60
 caaagcttca cactctacca acatagaact ccatgttggc gatagatgct ttgttgccgc 120
 taataaccgt gttgcaacag ttcgttacgt cggaaagctt cctgttcatg aagctgaaac 180
 agtggttgtt ggagtccaat ttgacgaacc tgtaggaaag aatgatggca gttatcaagg 240
 acattactat tttcactgcg aaccaggata tggaagtttt gtccctttga atagaataac 300
 caaaatggaa actattcatt cagagagtga aaataatact tttgaagaat tgtaatgatg 360
 agag 364

<210> 5566
 <211> 374
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-H6

<400> 5566

cacgcgtacg gaaaatttaa agccgaaacc gcgagagcat tggcaacgtg gtctcattat 60
 cgttttcggc aacgcttggt acagaaatcg agagaatatc cttggtgccg agtaattata 120
 gtgaatgaag cttatcccag caaaacctgt agaatgtgtg gacagataga ttccaaacta 180
 agaagatagg aagattttca actgtccgca ttgtaagaaa cgttgtgatc gaaatatcca 240
 tggagctcgc aagaacttgt tgcgcttctt gggcaaaaaa cggttaattcc ttttaagtttc 300
 caaaatgtgg tcagacaaga attaccgggt tagtgcgagt aagacagtag acatttattt 360
 acttacaaca atac 374

<210> 5567
 <211> 435
 <212> DNA
 <213> Cyanidium caldarium

<223> Clone ID: LIB190-069-Q1-E1-H8

<400> 5567

ccggctcgac ccacgcgtac gccacgcgt ccggaattat ttgagacaac agatgaacaa 60
 aattcagtca ggcaatgtat tgcaagtaga atggagaggt gcatctccgt ggttggcaga 120
 ttatcataat agcaactttc aagctgctcg ttcggcattt caaaaagtgt atcaagttga 180
 tccagacttg accagagaag gtggttctat tcctatcacg aatacttttc aagaatattt 240
 gggaagagaa atttgtttga tgcctttggg ttctcccgat gatggagcgc atagtcaaaa 300
 tgagaagatg aacaaactca attatatata aggaatcaaa gttattatag cttatatgaa 360
 tgaacttgtc aattgctaga ctcttttccc gctatatattc actctaataa tataaaagga 420
 taaagttggt cttgg 435

<210> 5568
 <211> 455

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-069-Q1-E1-H9
 <400> 5568
 cgggtcaagaa ttcacggctc gacgcacgcg tcagcttttc ttttccatga aaagatggaa 60
 aatgcgattt cctatgatcc attaggaaca tcctcttctt ctctcgcacc tcatgccacc 120
 accacattaa tgctatatct tcagcaagtc aatgggtctat atcaacaatc cgtatcattg 180
 tgtgagacca tcgacgacaa agaaccgcgag tcgcaatgcc gtacatttca aacgagtctg 240
 gtggcaaaca attttttttg caacatcata ttgtccactt gtctcatcgg ggcaacctct 300
 ggcaattcgt ttggaagcaa cttgaatatc ccaccttata acagtaccaa ggggaatagat 360
 ggctatcttt ggtacatcgt ggcagccgga agctttgtga tatgggtggtc attccttgcc 420
 ttgtttatat tcaaaaacag atcgtctatta aacta 455

<210> 5569
 <211> 295
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-070-Q1-E1-A5
 <400> 5569

ccgggtcgac ccangaatcc acccacgcgt ccgcccacgc gtccggaaaa gccgtactga 60
 agaccgacac aggtactcga ggagaaagga gacccaaatt aaggtgagag aatggacgat 120
 aaggaactag gcaaaaggat atggtatctg cggtagaaca tatgaaagaa gcagcaccga 180
 ctgttttagca aaaacacagc aatctgcaga aaagagaaaa tgtaaagtat agagtgtgcg 240
 gcctgccaaa tagtagagaa gaaatcgatg aaagtgaaag cgagtaaaag attaa 295

<210> 5570
 <211> 376
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-070-Q1-E1-A6
 <400> 5570

aattccccggg tgcacccacg agtcaaaaaga aaagttgttt gaggaccaaa cagagtgaca 60
agaagagatg gcaaggagaa tattgggtgc ttatatggga gatgccacag tggcaactct 120
gttcagtatc aaaatgttgt tctatcttac tatcatgggt ttctccataa ctatcttggc 180
tctcatggga aagaactcgg atggtatttg gatacatagt gtgccacctg cagatcaata 240
ttgtgcatac aagtcttcat tggaggtgaa ccaccatgga attgcttcct attgcaagta 300
tatcgttgcc gtagctgcta ttgggttggt tatctcgttt ttccagtttt gctacggctc 360
gttgggtatc tttttc 376

<210> 5571
<211> 382
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-070-Q1-E1-A8
<400> 5571

accacgcat ccaagcactg tggccgatgg tgctttccca tacgagaaga ctgcttccaa 60
taggctttta tcatactgga atattaagac agacaaaatt tatcaaccaa gaacagtcct 120
caaccacctc tagtatacct agtgccgagg atactcctct ccatatcgac gaaagctgtg 180
tccagcgctt gagatatgtt agtagccaaa ggggaggaaa acctgttgct ttaagagtag 240
cagtggatag tggaggatgt tcaggctttc aatatacttt tgagttgacc gaggaacagc 300
cagcagagaa cgaaaccgtg gtggaaagaa acggttgcaa agtatatgtg gacgatattt 360
ctctcccgtc tttaaaggga ag 382

<210> 5572
<211> 413
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-070-Q1-E1-B5
<400> 5572

aatgcccggg ccgacccacg catccagaaa gaggaccgaa tcagggttaag aggtagagga 60
gcaagaagag aagagagaat gctgggtgga gtagcgaaac aagagaaggg aagtaaaagg 120
taagaaagag gaaaggttta cgagagaagg aagtagaaag aagagagtgt aaggcggcgt 180

cataatagaa atccgaaagg agtagaagaa aagagagaga agaaagaaaa gaagagaaaa 240
gccgtactga agaccgacac aggtactcga ggagaaagga gacccaaatt aaggtgagag 300
aatggacgat aaggaactaa gcaaaaggat atggtatctg cggtagaaca tatgaaagaa 360
gcagcaccga ctgttttagca naaacacagc actcctgcag aaagagaana tgt 413

<210> 5573
<211> 347
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-070-Q1-E1-B6
<400> 5573

gaccacgca tccacggacg cgtgggcgga cgcgtgggga aggatataat cgggtttcct 60
ggaattgctg gcagtggagt gagcgtgga gaacgtgcag tagaagccct gttaaacgaa 120
accctatatg ttaatgtaga tctcaggac tttccccgtt ttgatgggga agattttaaa 180
cccacgcttt taaagaagat tagcaaaaaa aaaaaaaaaa aaaaaaaaaa taaaaaaaaa 240
agaaaaaagc acaaaaagaa taaaggaaaa agtgcgtagt gtcacaaagt taaagctctt 300
gaacagcgtc acaggaaatc aaatcaacaa caggggtggc cccccaa 347

<210> 5574
<211> 366
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-070-Q1-E1-B7
<400> 5574

aattcccggg ccgaccacg catccaccg tttatctctt ttctttgtat ggaagctgcg 60
ctacgatatt tcttggttg gagtcgggtt gtttggtagt acagccttaa ttttggtgg 120
gttataaatc atccaaggct aaatacgtaa agagagaccg acagaaaagt ctggtccgga 180
agccaagttg aagggaactg gtgcaaagaa acaataaaaa gttgactatg catgtgtaag 240
tatttggtga ttttccagta gaacaagcta aagttgtttc tgaaggcagt cctgttatgt 300
tttgtgagtt ctgtttgata gtttccagct attcttttgg tagtgaataa agagaaaatt 360
ttttat 366

<210> 5575
 <211> 395
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-070-Q1-E1-B8

<400> 5575

aattcncggg tcgacccacg catccaattt aagaagttat tgaccgatgc ttgattgct 60
 tacttagaac cgatacagac aaaatatcat gaattacgaa aggaggaatc ctatttgaaa 120
 caagtgttga aagaaggaag cgaatatgct tcgtcgatag cacaagaaac gataggcaag 180
 gtgaaggatt gcatggggtt tgtgggaacg gattgaaaag gtttccaaga tattttgtgt 240
 ttgtgcgtgt gtatatgcgc gcaagctttt ggtggtgact cgtggacaca tggttgcaag 300
 ttgccagggg ttttttaggt cgatcttttc cgttggggtg ttgctctcta tcgtagaata 360
 gaaagcgcgt tttttttgga taaaggcaca acaac 395

<210> 5576
 <211> 260
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations
 <223> Clone ID: LIB190-070-Q1-E1-B9

<400> 5576

cacgcgtcca gaggagaaag gagacccaaa ttaaggtgag agaatggacg ataaggaaact 60
 aagcaaaagg atatggtatc tgcggtagaa catatgaaag aagcagcacc gactgttttag 120
 canaaacaca gcactctgca gaaaagagaa aatgtaaagt atagagtgtg cggcctgcca 180
 aatagtagag aagaaatcga tgaaagtgaag agcgagtaaa agatgaggta tagagaatgg 240
 cggtcctaac aataaggatc 260

<210> 5577
 <211> 385
 <212> DNA
 <213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-070-Q1-E1-C1

<400> 5577

acgcgtccaa ccgactgttt agcagaaaca cagcactctg cagaaaagag aaaatgtaag 60
tatagagtgt gcggcctgcc aaatagtaga gaagaaatcg atgaaagtga aagcgagtaa 120
aagatgaggt atagagaatg gcggtcctaa cagtaaggat ccaaaggtag cgaagtaa 180
agacgtttga aaggcgtcca gtatgaaagg agaaacgagt gtagcactgt ctagtcgtcc 240
aactcagcga aacagcaata actgtgaaaa tgcagtaa 300
cccataattc ttgactagat aggtttacgg angagagaga atcatgaagt anangaagt 360
gggtaagaga tgaaagacca ctgca 385

<210> 5578

<211> 372

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-070-Q1-E1-C11

<400> 5578

acgcgtccaa ccaagcgtcc gcccacgccg tcggccaacc ctccggccaa gcctccgggg 60
gtaggctaag aacaacaatc caaagaagga aacgttaaag catgaaagaa aagaaatccg 120
aaaaagaaga gaaaaaggta agaaagaaga ccgaatcaag ggtagaagta aaggaacaac 180
gaagaaaaca aagaatgctg ggtggagtaa caaacagaaa aggaagtaaa cgtaagaaag 240
aggaaacgtt tacgagagaa agaagtagaa agaagagagt gtaaggcggc gtcatanag 300
aaatccgaaa ggagtacaag atcagagaga gaagaatgaa tagaagagaa aagccgtact 360
gaagaccgac ac 372

<210> 5579

<211> 422

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-C2

<400> 5579

aaagcagtag caaaagggtt aaaacgtcac aagaaccttt cagtggaaaa cctccgtata 60

tatcctattc cgagtagttt tgtgccacct ctttctctg cctctaccaa taatcagaag 120
 aggtcaaggg attttgagca taatttgtcg aataacctgg tatatggaga gtttccgcca 180
 cttatgaggc gtttatgtca cgaacatagc agaatgaata tgaggaggat gaagtcttcc 240
 tcgtccttcg agcacatcaa ggatgtgaga gagaatagct gcgaacgctg ccaaagtatg 300
 actagttgga tggtcgctat tagacaagct gttcttacgg cttcaacgct tccgttcgat 360
 ccacgctatc attatgtatc atatagtgtg gatagacgag gtattgtatt ctgcaacgaa 420
 ac 422

<210> 5580
 <211> 390
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-070-Q1-E1-C6

<400> 5580
 aattcncggg tcgaccacg catccagaaa aagtgggtgga tgaggggcat ccggatgatg 60
 tcgttccagg tgaagaagaa gagaatgatg atggaatggg taataataag gatacacgta 120
 cgagtaaccg taggatggca ccttatcaag tggatcagt aggtggcacg tttgatcgtc 180
 tgcattcggg gcatcgttta ttattgagtg taacagcgtg gagttgtaac gggcacttac 240
 ggattggcgt gacaggacca aagttattgg agcacaagca gtggaaggag ttgattgagc 300
 cttttgaaca acgagttgcc aatgtgggtt catttgtaaa gagcattcgt cctcgagact 360
 tggtcgtgac tgccgtatag ttgcacgatg 390

<210> 5581
 <211> 350
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-070-Q1-E1-C7

<400> 5581
 aattcccggg tcgaccacg catccagcca cgcttccgtt tgttgcgaag tatagcggtt 60
 ggttacgaat gcatataaaa tagtattcag attgttatgg gaagttcctt caaaaatctc 120

ttagtaatag atggacgggc tctttgtaat tctcaaacta agtgagatcg tctcatcgta 180
 cacacttcag agttacgctt cattagttaa gtgtgcctag tattattcat gtgagcgaat 240
 agcttccgag agatcgtaac ttgttcata gtacttgta catctggatt aacatgtgat 300
 tagatgggta tattaacata gtatcactca ctagttatgt gatatcgaca 350

<210> 5582
 <211> 407
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-070-Q1-E1-C9
 <400> 5582

gccacgcgtc caggctgaca gaaaaccacg gaatagggtga gaaattctat ttagacagat 60
 ggagacgcaa aggagacttt gactcttatt ggaccgttac gagaattcaa agagataaca 120
 agggagatcc ttccaagttc tttggttact atcactacaa gggactgac ttgaaaggag 180
 aaagagaaat cgaactcgcc aattgtaaag gttggagggtg cgatacactt gaaaaggagc 240
 gcaccaaatt gtttggtaaa acaccgacag ttccttaaaa aaaaaaaaaa aaaaaaaaaa 300
 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaacaaa aaaaaaaaca aaaaaaaaaa 360
 naaaaaaaaa acaaaaaaaaa aaaaaaaagg gggggcccct ctaaagg 407

<210> 5583
 <211> 402
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-070-Q1-E1-D11
 <400> 5583

aaagagaaaa agtaagaaaa aaggaccaat ccagggtaaa aggaaaagga ccagaaaaaa 60
 aaaaaaaaaag cctgggttgaa ttaaccaaac agaaaaagga aattaaaagg taggaaaaag 120
 gaaagggttaa caaaaaaagg aagtaaaaag aaaaaattgt aaggcggcgt cataataaaa 180
 atccaaaagg aatagaagaa aagagagaga agaaggaana gaagagaaaa accgtactga 240
 agaccgacac aggtactcga ggagaaagga gacccaaatt aaggtgagag aatggacgat 300

aaggaactag gcaaaaggat atggtatctg cggtagaaca tatgaaagaa gcagcaccga 360
ctgttttagca aaaacacagc actctgcaga aaagagaaaa tg 402

<210> 5584
<211> 390
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-070-Q1-E1-D6

<400> 5584
aattcncggg tcgaccacg catccaaagc ggcacacaaa aacgcttggt tatccacgtc 60
acgtagattc gcaagtggag tcagcgggta tgttattgga attgatttgg gtacaaccaa 120
ctcttgtgtt gctattatgg aaggaaaaaa tcccagagtt attgaaaacg cggaggggtc 180
ccgtacgacg ccttccgtcg tagccttcac tgcagaaggg gaaaggctgg tgggaacgcc 240
tgcaaaaaga caagctatta ccaaccaga aaatactttt tttgctacaa aaagactgat 300
acgaagaaga tttgacgacc cagaagtaca aagagatgta aagacgatgc cctacaagat 360
agttcgagcg gataatggag acgcttgggt 390

<210> 5585
<211> 348
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-D7

<400> 5585
gaccacgcga tccaccacg cgtccgaaaa aaaatggata aaaaaaaca aataaaataa 60
aaaaataaaa tcagaaagtg atattaaagg aaatgaaatt gagtacaaac aactcttggt 120
ttgctattat ggaaagaaca aaatcccaga gttattgaaa acgcggaggg tttccgtacg 180
acgccttccg tcgtatcctt cactgcagaa ggggaaaggc tgggtgggata ccctgcaaaa 240
agacaagcta ttaccaaccc agaagatact ttttttgcta caaaaagact gataggaaga 300
agatttgatg acccagatgt acaaagacat gttaaagacta tgccttac 348

<210> 5586
<211> 440

<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-070-Q1-E1-D8

<400> 5586

aattcncggg tcgacccacg cgatccaata tggatatctgc ggtagaacat atgaaagaag 60
cagcaccgac tgttttagcaa aaacacagca ctctgcagaa aagagaaaat gtaaagtata 120
gagtgtgcgg cctgccaaat agtagagaag aaatcgatga aagtgaaagc gagtaaaaga 180
tgaggatatag agaatggcgg tcctaacagt aaggatccaa aggtagcgaa gtaaataagac 240
gtttgaaagg cgtccagtat gaaaggagaa acgagtgtag cactgtctag tcgtccaact 300
cagcgaaaca gcaataactg tgaaaatgca gtaaactagc agtaggacgg aaagacccca 360
taattcttga ctagataggt ttaaggaaga gagagaatca tgaagtanag gaggtggggt 420
aagagatgaa agacactgca 440

<210> 5587
<211> 308
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-D9

<400> 5587

cacgcgtcca accacgcgtc cgcaacatca tgcaactgtc ttaatatagg ctctttgatg 60
atgctgccat cgggaaacat tcttctacga gtatctatct ttctagcaag ttctcatct 120
tcatactgtc gtttgatgaa ataacgggga agagtttcat tcgatgccca taattgtttt 180
aagagttggt gcgtgtcttc actcaaggaa gctacatagt cttcttctac gatgtcaccg 240
aaatgataga tacttaaatt ggaaatgtgc ttgtgtaagc cttgaataaaa actgagagct 300
tcggtacc 308

<210> 5588
<211> 406
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-E5

<400> 5588

attccccgggt cgaccacga gtccatgtga tatcaatata atggacgctg gtcaatggga 60

attgttttgca aaagatgccat atgtgtctac tgcaggctat tctcaaggca taagtaattt 120

gagcaaatgt ttctcttccg ataagagtgc ccaatacttt tggattgccg cttatgcatt 180

gacaccttcc caactaaaaa tcaagttgcc ttataacaac accgatgtgg aacgtatcaa 240

tgaagtagct acccaaggat tgaatcgtag tgcttgtgta ctgaatgctt atgatattac 300

cgtcaatgcc tttaatgata cgaaacaagc aactaccgat ggaattcact atctaagatg 360

gatcaacgaa caagttgtac aattgttctt caatgcagtt gacaat 406

<210> 5589

<211> 416

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-070-Q1-E1-E6

<400> 5589

accacgcat ccaccacgc gtccgccac gcgtccgcc acgcgtccgc aagtaaataa 60

ataagcaaca aggcaacggc tgtgacaaga ccaatcaatc catatgctcc ataaaaggaa 120

taagaagaat attttttcac agtcacaaat gtattttcta tggaattcaa aacattatcc 180

atagtacttt tgaagtccgt tgcttctgt tctatctctt gcattgcttg taatatgtca 240

gaatatgcag gataactggc atttagttgg gcctgaagac cttgagaaga aaaggtctgt 300

tggaaaaaat tagcagaggc agtcatccaa tgaatggaac catcgagagc attttcgtcg 360

tgacaaaac tctttacang cacatgcttt cctagaaagc caaatgctgc accaca 416

<210> 5590

<211> 416

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-E8

<400> 5590

accacgcat caagatgact gcctcaagtc ttctatcttt gcagcggtgt ttttcggtg 60

tgattttctt cattctctaaa acttctcgac atacgaatct ttatacaaaa aactccatcc 120

aaagtgttgt ttcactttgc agagagagaa actttactag ttctacagaa acttcgagtg 180
tcggtagtcg tttcaagaac attctcgtag aagcccgtag tgaccgagtg ggtttaatca 240
cgctcaacag gccaaaacaa ctcaatgcc acaacgagga gactcaacaa gaagtgcctc 300
aagcgttgga agagtttgat cgcgatcgtt ctataggagc catcgtcttg actggaagtg 360
aacgagcgtt tgctgctgga gcagatatca aagaaatggg caatcgcaac tttgtg 416

<210> 5591
<211> 368
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-E9

<400> 5591

acgcgtccac ggaatttgaa atggaaagaa gcacttcgat caagcaaag gagtctgtac 60
agagacaagt aagagaacaa cattcgaaac aagagcagga tatggaaag cagacttgca 120
atgaaagaag agataaaaga gcgaaaagaa ggtcgggaac ttacatcgt ggcagtcaag 180
aggaattgaa atagcagtcg tggatattgt agaccaactt gtatttggtc catgttggtta 240
tcgtagggtt ttagaaacat tcacctttat ttgatcgctt gtgcctgttt ccccatgaaa 300
aaccctctgt aaagaaaagg tcgataaaat tctctgggtgc cacaatttcc caaaaaaaaa 360
aaacacac 368

<210> 5592
<211> 386
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-F11

<400> 5592

acccacgcgt ccggaaaaga gaaaatgtaa agtatagagt gtgcggcctg ccaaatagta 60
gagaagaaat cgatgaaagt gaaagcgagt aaaagatgag gtatagagaa tggcggctct 120
aacagtaagg atccaaaggt agcgaagtaa atagacgttt gaaaggcgtc cagtatgaaa 180
ggagaaaacga gtgtagcact gtctagtcgt ccaactcagc gaaacagcaa taactgtgaa 240
aatgcagtaa actagcagta ggacggaaag accccataat tcttgactag ataggtttag 300

agaggaaaga ggtgtatgat gcaggcaaag aagtgcgcga gtagattaga gagtaacaca 360
tgcaagtagg taaagcgaac gggatga 386

<210> 5593
<211> 445
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-070-Q1-E1-F6

<400> 5593

aattcncggg ccgacccacg catcaagttt cgtctactca cgaaaagtat tgcaccagtt 60
actaaaagca ttttggtatc cacagtaaag tataatagtc ctttgcagct gagtaaagca 120
gagatatgga gagcttctta tccaattgga agcagacggt cttttgcaga acaaaaggca 180
cagcagcagt ccaaagaagg tgaagaacca ataacgcctt atcaacctgt gacggagaag 240
ctggataaaa gagacccaaa ctatccttgg aagtggagaa gttttcttcc tgaacatacc 300
taciaaacca acctcaatat caatctggaa aggcatacata cacctttaga ttttagagat 360
agggtagctc ggggaatcgt caagttttta agattttttg cggatgcctt ttttcagaaa 420
cgatacggac aacgcgctgt tgtgc 445

<210> 5594
<211> 360
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-070-Q1-E1-F7

<400> 5594

acccacgcaa tccagtgtgg tgggtggtgac tggaagcgta cgaggaagca ttgtcagggtg 60
ttgggggtttt tacaaggctt ttcgtataat aaacctctt gtgttgctgt ttttggtcga 120
aaaccacagt tgtgtttctt tctcggcaa ccatggacaa gttgtaaaag aagagggagc 180
ctanggatag tagctactgc gagtacaacc agcaatagca ataatagtat tcaagaccac 240
aacaacaaca ataataataa taatggtaac attttattcg tattgtaaac gaaggttcct 300
cacatgaacg anatataaac taagtgggtgt tatggcactg aaccaagaaa acgtcgaaca 360

<210> 5595
<211> 378
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-F8

<400> 5595

aatgcccggg ccgaccacg agtcaagcca cgcgtccgtc ggattcctct tctgttgatg 60
catcgttgcc ttctggggaa agacgttcga agtcagttag aagaggattg tcgctttgca 120
atgcgtcgtt taacaacttg gccgcaagtt tggcgtcttg agctatttct tgttcaagaa 180
gaggacctca ttcaactttc cactgggatg ggcgttcaa tgcttgctgt acggtaactg 240
gaggattatt ttgccacac aaatgataca agtgaagtgc taaagatatg catctgagta 300
aacgagtaaa gtatggctta tattcgttgg ccgcagataa cattaagtaa taatattcct 360
cgtttcctgg tccatatt 378

<210> 5596
<211> 377
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-G5

<400> 5596

accacgcat ccagaatttg gtttgttggc caaagatgag gaagacgagg ttcttttagta 60
acaatttttag gaaaagtagc taccggagta tgggctcaaa aagggacaac aagggtttgt 120
tctctatgat atatcacggg ttgatgtctg ctctttttct gcttggtggt ctaactcttg 180
ttggtgtggg aatatatgct gaagtaactc attctggaaa gtttgacttg gattggacga 240
gtagcttttg gagtgctgtg acgaactttg gaatagctgc catcatagtt ggagccacgt 300
tggcagttat tggagctatt ggttttgtaa catttaactc tggtttttgt gggaaattct 360
tcaagttgat gtatttc 377

<210> 5597
<211> 418
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-070-Q1-E1-G6

<400> 5597

aatgcccggg ccgacccacg agtccacatt gtgcagagtc atggtcgact gccaaaaaga 60
cggttatgca ataggaaagt tatgattcca ttttgccgtt caaataacaa tagcgagaag 120
gagaggaagg tcgctcctgt agatagagaa aagaaggtgg ttggagttgg tatggccggc 180
ttggatttta ttgccaaggt tcacaagttt cctcagccag atcagaacat aagaagtgt 240
caacatagca ttcagggagg cggaaatgct gcaaatactt tgacttggtt gaggagatta 300
ggtgtaaacy ctgttctagt aacgaaaatt ggtagtgact ttgcgtctca atccattatc 360
gaagagttgg aacgtgaaga catggatata ngtttcatta caagacaaga tgggtgctc 418

<210> 5598
<211> 345
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-G8

<400> 5598

cgggccgacc caccgcgtcca cccacgcgtc cgcgagcgcg tgggcggcctt cggtatctgc 60
acattatatt catcgagccg agtcttcttc gtctcgacgt gcagtttagca tttttatgat 120
aagattggcg gaaagtgtga tgaatcgaga acgaagactg gcgggttgaa agaaaccatg 180
tggaaagtat tattcctact actagtgaac cagtgggttat tcgtgtcaag tgtataatgt 240
actgtatagt ggatacaacy tcaactatca cctccttggt cagctatata gtagatcaca 300
ttgatttctg aggaatgaca aattgtgaga agcaaagtca atgga 345

<210> 5599
<211> 280
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-070-Q1-E1-H1

<400> 5599

acaaacgacc tcgatgttgg atgacaagca atggcatcat atcttcacct tgtggttgga 60

agaagagcaa cttttatcga tgagtaacca ccaacaatat cgtcgtttat tggtgaaaac 120
 atatctccaa aaaattcatc agttacaaca agatatacaa tatctatcca aactgtataa 180
 aaccattctt cctacttgaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240
 aaaaaaaaaa aaaaaaaaaa aaaaaataaa aaaaataaat 280

<210> 5600
 <211> 392
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-070-Q1-E1-H11
 <400> 5600

gggccgaccc acgcggtccac ccacgcgtcc gggcctattc tatggctttt gctttgcgtg 60
 gtctagcgag tctttcaagt cgtttgagta cttggaaaca gggttacaag attgtaactg 120
 ttgcaaataa ttttgaacga gaaagaggac tgcgactggt gagttccttc caaagtgcgc 180
 ggcagtggac ttcgttgcaa ggtttggtat gtcgctatag aagtgcacgc gttgtggagg 240
 gagggaaaaa gcaaaaggga gtcgctactg aaagaagtcc tgtttctaca gccattccca 300
 tgggttatgc cgatgaatat ttccatcacg tgcacgttg gcgtccagga gatccaagta 360
 aacgaacggt agtctatttg tggttgggaa ct 392

<210> 5601
 <211> 417
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-070-Q1-E1-H5
 <400> 5601

accacgcat ccaccacgc gtccggtggc cacttggcgc attcgttggt tccgctctcc 60
 aaccaaagtc accttgctgt tgtggcttga aatattccac ttgtaagaaa ccttatcgta 120
 tagatatttt acgaatatcc aaacctagtt gtttgaataa actagacctt cgagcttctc 180
 agcaaaaaaa ggactcaaag aactccaagt tattggcttt cgaaacgaat ggagatgttc 240
 tcaagtttgg agtcttggtt actagtagtt gccttttttg ttattgggtc ctattacaag 300
 tatttcgagt atctgaacaa acagctggac tggtgactac tggattgtta actatctttg 360

gaatgggact ttggaccttt cgtatcttttc tgcggtgct aatanagaga tgacata 417

<210> 5602

<211> 408

<212> DNA

<213> Cyanidium caldarium

<223> unsure at all n locations

<223> Clone ID: LIB190-070-Q1-E1-H7

<400> 5602

aattcgcggg tcgacccacg catccaacaa ttcaaagtgt atctcctgcc tttaaagtca 60

gagatatgtt tgaatttctc aaggcttcct tcgaatggaa aagtcattgag aagcaaactt 120

tcttatggaa gttgcttctc aaggacattt ctaatcacag tcatatggaa caggtgttat 180

tgtgccatga attccttttg caggtgcgat cggaactggc agtttttttc attatcagcc 240

agcagagccg tttttaatgt gttttctgac tggatcatat tgcaaactcc caatatggga 300

atattattta ctctctttga attgggagaa acgtttcagg acanagtctc ngacattctt 360

tgtagtggc tcgtcaaacc tggcaagcgc caggaactca ttcaatta 408

<210> 5603

<211> 431

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-A11

<400> 5603

aattcccggc tcgacccacg cgtacgcca cgcgtccgcg gacgcgtggg tggaaatgga 60

agatgctcag cgtcgaaagt cgttgcaagg ttgaccagg caacagattt cggatattgt 120

ggaagcttgt gcagcttctc ccaacattga cttgagtttt cagttggtct gtgaggaaag 180

cgaatcatcg gaagtggat atccaggttc cagcataagt ttggttgccg agttaacacg 240

agaagaagaa gaagaggaga caggagataa acaaggacaa gatggcgacc tcgttcatca 300

tcctattgct tacagtacgc gctttccaga aaagaaagaa gaaagtgggt gggtattagt 360

cgtgaattg ggagctactc caacacttgt tgctatcaaa cgtctcatag tcaaggagg 420

tggaataaag a 431

<210> 5604
 <211> 346
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-071-Q1-E1-A2

 <400> 5604

 attcacgggt cgacgcacgc gtccggaatg gagaccaccc acagctgcgg cattttgccca 60
 agtttcgttt caagtgggtt ccaagtacaa cttgccaaac agttatcttc tgttattcat 120
 tcaggaaata aatgtccatg gagaaaatgt tattcgaaaa atgtccctcg tgttcgttcc 180
 attccaacaa ctgtagttgc aagttacaac tacaacatat ttcaagacga ccaagatcgt 240
 tcgagaagaa gaatacaacc aagagaaaga gcctacaacg taaaaaagcc ggttggtttg 300
 gtagtggaac aagcagaaga cggaatggta tttgtagcgg ataatag 346

<210> 5605
 <211> 366
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-071-Q1-E1-A4

 <400> 5605

 tccagaattc acgggtcgac gcacgcgtcc gcaaagttag tcaattggcg ttgtgatgtc 60
 agtgactatg cgattttggg ttacagtttg gaataagttg gtgtgacttt ggtcttttct 120
 gcccttcagt cgaagtattg gagtagtttt cggcttgtag ggaagagttc agtgcacgtt 180
 catgaatgta tttttgcgtt cgtttattcg tgcactggcc tcccttggtt ttacttacta 240
 cagaatttcg ccaaatatgg gggttgaaca agctttgccc gtggcttgcc ctatagtaag 300
 cgaagttctt agttgttggc aagttttctg tacgagacct gactggagtc tgggagtggc 360
 gactct 366

<210> 5606
 <211> 318
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-071-Q1-E1-A7

<400> 5606

ttccccgggcc gaccacgcg tccaattgtc gtcgagttgg cgcttggcac tagttgtaga 60
tgtggcacag acagtgggaa gttgtatgta cagagacttg gacgccgttt tacagaggat 120
acttggcata tcggtggaga gtgattcttc aacgtttccg cctcgtggcg gaccgcgtga 180
ctcggagttt tacttgtaga gtgtttcttt ttacactttt gtattttatc agttgttact 240
tgcgtcgact aggtgcttca cgacttgtaa caagtctccg ttgtgttgtt tcaacggatt 300
ttcggcctcc tttttatc 318

<210> 5607

<211> 270

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-A9

<400> 5607

cggctcgacc cacgcgtacg gcgaacgggt gagtaaagag gtgtgaaaga gtggaagaac 60
atgaaagcac agaagaatgt aagaaatggt tagagtaaaa accataaagg taggcttaga 120
agcagcaaac cagagaggaa agcgttaaag catgaaagaa aagaaatccg aaaaagaaga 180
gaaaaaggta agaaagagga ccgaatcacg gtaagaggta gaggagcaag aagagaagag 240
agaatgctgg gtggagtagc gaaacaagag 270

<210> 5608

<211> 303

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-B11

<400> 5608

gctcttatgc atatggagtt tttattttga atggatttga ctttgacaag tgttatggaa 60
cagaactagg tgctatatcg ggaatcgtca tttatttttc gtatcttgcc ttatttgttc 120
gtttttacgt gaatacttat aagaagaaac aagtattgga aaagaaagaa tcttgaaacc 180
tctttctacg tatgagttgt tgttgttgtt gttgtgatgg gaggaaatgt taccaccacc 240
ccacacacac aagttgcaat aaagcacttg aaaatttttt gggttgaaaa aaaaaaacia 300

<210> 5609
<211> 67
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-B2

<400> 5609

tacgtcgaaa ttcacgggtc gaccacgcgt ccgatctatg gaagtaacga agaacgagtt 60

tatagaa 67

<210> 5610
<211> 370
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-B4

<400> 5610

gtccagaatt cacgggtcga cgcacgcgtc cgcccacgcg tccgagagaa cagttaccga 60

tagttccaaa acaacgaatg gggctgctgc tgctcccaa gagaccaaac tcagttccat 120

ttttagtggc caaagtacgg attcgaaaac aaatactact agtgctagtt ccaggacagc 180

tagcagacca gcgaaaacca atgaaaagat ggaaactccg ataggaagtg caaagtttgg 240

tttcttatct tcccgaatga aacctagtg aattgggtacc actctacta ctagtaccgt 300

gggcagtagc ttatcccaa agaatacagc acgtccaagt acgacaccaa gcaataagaa 360

acatttagaa 370

<210> 5611
<211> 447
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-C11

<400> 5611

ccggttgga attccgggt cgaccacgc gtacgccac gttggtaaag atagacttgt 60

ctcaaggcag ctttaaagta ctccaagact gtgacagaga tttagaatgt gatcataata 120

ccaagtttca gttggaactt attcagtatg gtctcttttc acctggtttt tggacgagag 180
 aaaatgttct gctcttctat ttggagctcg tgtcaggtgt attcataagg gacactctct 240
 accttttcta caacaaaggt gaagaacatt tgtttgagag tttaatgctg ttgttggaga 300
 cacaagtttc actgtatgca gacataaaaa caaactggga gaaacgacac tttatcgttt 360
 gcctcatcgt caggtctttg tgtgaggaat atcaacgaca gtattcagag ctatgttcac 420
 cgaatgaaag cagcaaagat atgctac 447

<210> 5612
 <211> 325
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-071-Q1-E1-C2
 <400> 5612

attcacgggt cgacgcacgc gtcggttgtt ccatgtggag gaggggtgggc tttttgtggc 60
 tgggggtcaag cctgtgagag aggaagatgg agttgatttg ggagaagtag tggaggatgt 120
 cgtgagtgc tagtgcaccc ttgcaattg ggaacaggtc cgtgtgggga gaggaggagg 180
 tgatagcttt catgtcgtcg agtgaggcct acggtagcgg tagcactgtt gtacagcgag 240
 tggaatagtg gtttcaggag ggactccatc ccaaatttcc tcaagtaa at cgagcgttcg 300
 acgagctcac ggggagtcac gtcag 325

<210> 5613
 <211> 334
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-071-Q1-E1-C4
 <400> 5613

gtccagaatt cacgggtcga cgcacgcgtc gggcaaccgt caagtggagc aacgactggt 60
 tggttgttgg tgaaggagca caagtgttgc attgttgttc aatactgttt gtaatagtag 120
 cagtgagagt agcatgacga gtagtaacag tggtagtgtt catcaacaag ccaaggattg 180
 ggtggagtcc agtagcaaaa atgagtggac agagcctgca gctgctgtgg caggaacttt 240
 ggctccttg ggactgataa gaatgtagtc taatggacct gtatataaaa attccgtcga 300

cttgaagggc gaagtaggtg tagtgacagg tgcc

334

<210> 5614
<211> 385
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-C6

<400> 5614

taaattatgg cggaccatga tcaagtggta gcgtacaagc gttcagaaga agaaaaatgg 60
agccaagcag gtgaaaaaag atggcagtta ttcagaagac tggaaaaaga gaatgctact 120
gcccgttttt tcttagaaaa cagagctatt tttccaggtg ctagagtttt ggaactggct 180
tgtggttccg gagaaaccac tttgcaagta gctgcgaaag taagaggcta ttctgtacct 240
tcaggagaga ccacggggga actggtggat aaattgttgg agatattacg tccatcttat 300
cagcaggaag ggaaactgga tgggtgccagc aatactggtt cggtagtagg tgtagatatc 360
gccaagggaa tgctgaatgt gtgca 385

<210> 5615
<211> 444
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-D11

<400> 5615

ggttaggaat tcccggctcg acccacgcgt acgcaaaaac ctgatagttg gtttagagct 60
taccctttac aggaagacct atttgagtgg cactttacta taaagggacc agaaggtact 120
ccgttcgagg gtgggttttta tcacggaaaa atactgttgc cacctgaata tcccttcaag 180
ccacctgata tcgtcttgct aacaccgaat gggcgttttg aaacaggaca acgtatctgc 240
ctgagtgtta gctccttcca cgaagagaca tggcaacctt cttggagtat ttactccatt 300
ctgttaggcc ttcgttcctt ttttccttgc aaggcagaag gagttggagc tctccagtgt 360
gacctcaag ttcagagacg cttggctcgt gcactctctga agtttctactg cagacaatgt 420
aattttctct tatcgacgtt taaa 444

<210> 5616

<211> 443
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-071-Q1-E1-D12
 <400> 5616
 aattcccggc tcgacccacg cgtacgcca cgcgtccgag aagtcgtcaa aagaagagaa 60
 acctagagag tcgaaacttc atacggttcc taggtcggaa gatgggtcgt ttattatgcc 120
 ttacgattg ggtgttttaa ccatcgagtc attgggttat attgatcctt atcgaaaagg 180
 ttttcacaat gaaagagtaa tttatccgat tggttttcgg tcaaggcgtc attttacttc 240
 aatgatgaac gttgatagac agtgtgacta tatatgtgaa atagtggatt gtggatatga 300
 ttatcccata tttagagtaa cttgtgaaga tttaccggat caagtttttg aggaaacttc 360
 tgcttctggt tgttgagacc gaattctcaa gattattaca gaaagaactc ctgaagaacg 420
 acgacgctca catgtttcgg tgt 443

<210> 5617
 <211> 311
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-071-Q1-E1-D2
 <400> 5617
 gtccagaatt cacgggtcga cgcacgcgtc cggcaatgag gaaacgttgg gatcgggtgg 60
 gatcacaggg gatagaatat cggtgggaca gcagacacac acaaatacaa tccagcttta 120
 cttttcatcc tgcgcaacag catccttttg tggatcaaca gacttgggag attgtgcaca 180
 gctagggcaa cctagtcatt gcattcacat acgcgtgcac cgaagctaca actatatccg 240
 tatttgccgc actaccagtg gaggaaggac tgtctgtttc tcctcgaata cagacagtta 300
 cttctcccaa t 311

<210> 5618
 <211> 323
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-071-Q1-E1-D3

<400> 5618

attcatgggt cgacgacgcg tccggatttg ccatgcctgc tgcgtcgagg ttggcagcga 60

cagatgctag tgtgggtgaa agatccaagt ctatgatgag aatagatgga aagttggttt 120

caggtaggaa ggaaacccgc aagatagtgg acgactgttt agacgtgcgc aggagtgggg 180

caggggtcga tgagtaagtt ggccgtggca gtgatcatac aaggttcagt tactgaactt 240

ttcgttgccg ctcgaggccg tggaagtctg ttcacgaagc atttttgaaa gtcacgccag 300

cggttgggag caagaacttc aaa 323

<210> 5619

<211> 356

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-D4

<400> 5619

gggtcgacgc acgcgtccgc ggacgcgtgg gttgttgccg ggtctggtgg tgatgccttg 60

gattgagcta cgtagtggca actccgctgt cgtgaaagac ataactgcaa gtattgagaa 120

gcctgacata aaatggataa ctaggacgaa tctcagtact tgtcggaatt ctgcagaagg 180

aaatgttacg gttgacttgt cgcggcagtg tagcttgaag gatataatattt cattgaagct 240

tctcgacaag aacgtgaagt tggcgtgttt taatgatgcc ttgtgttttag ttttaccagg 300

cttgagcctt tgttattact ggtgggcgga gagtctgtag aggctcgggc ttgaat 356

<210> 5620

<211> 387

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-D9

<400> 5620

tgccaaatag tagagaagaa atcgatgaaa gtgaaagcga gtaaaagatg aggtatagag 60

aatggcggtc ctaacagtaa ggatccaaag gtagcgaagt aatagacgt ttgaaaggcg 120

tccagtatga aaggagaaac gagtgtagca ctgtctagtc gtccaactca gcgaaacagc 180

aataactgtg aaaatgcagt aaactagcag taggacggaa agaccccata attcttgact 240

agataggttt agggaggaga gagaatcatg aagtagagga ggtggggtaa gagatgaaag 300
 accactgcat gaggataagg aatctaactg agtaaggaaa ataagcttaa gctagtttgg 360
 ctgggggaagt aaagcctaag aaagagt 387

<210> 5621
 <211> 441
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-071-Q1-E1-E10
 <400> 5621

tcccggtctg acccacgcgt acgtgcattt ttttcttggt gtgtcatggg aagaagaggt 60
 ggcagtgggtg ctgctagaag aactccgcta aggtcaaaac ctcccctttt tgcaaaaaga 120
 gaaagggaag aagcaacaac gaaacagtct tcacgtcctg cgtcttcgct ggccaacgtg 180
 aagaataatc ctacgagtgg aaaccaaaga gagaagacca accaaacgac gacccctcca 240
 actcagaagc ctagtatgac ctcttctctt tttgggggaa tgctaggaag tatgctcccc 300
 atgtttttat ttatgaactg gttcaagagg aatcccgagg aaagggaacc agacaaagat 360
 gagatagctc agaagaagtg tcagacgctt gcgtgcaata ttcaagattg tttggaaaaa 420
 aacgactatc agcaaagtat g 441

<210> 5622
 <211> 454
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-071-Q1-E1-E12
 <400> 5622

ccggttggga attcccggtc cgaccacgc gtacgcggac gcgtgggtgt tggggtagtg 60
 gaatgaaaaa cggttgtcct tgatgaaaaa gtgtcaactt ccggttctcc ctgaagacat 120
 tgaatctcaa attctggaat tattagagta tgtaaaggat gttgctgttg ctagaatgg 180
 ttgtaagcga tggaagagac tcgtggatga aaattcccaa ttgtggagac gacttcaagg 240
 ctttacacta ccaaaacgac taccaagtga agcggaaaag tggatatagaa aggcagcgga 300
 atgtgggaat cgagaggcaa tgggtgcttct tgccttgctc tattattatg gatatcagag 360

tcaggatgcc acagttttgt ctttgacgtt tcttcgaaat agtgtcgctt gttagtgcaa 420
cgagcactag tgtcgttggt gaggtattta taaa 454

<210> 5623
<211> 355
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-E3

<400> 5623

gtccagaatt cacgggtcga cgcacgcgtc ggcaggcgta gacaagcaag ctcaggagga 60
gagaagtaga ggaaatgagt agtttcgcaa tagacagtac aaggaggcat gcgagtgtta 120
tactgttgct cgtagtaaag aaatgagtac agaagaccgg gcagcgtggt ttgcgaagag 180
agctgcagca aagctaaagt tggaagacta tcgaggggct ttggaggatt gttccgaagc 240
tttgagcttg gatgaaggct attggaaagg aaagtaccga cgaaaggaat gctatttcga 300
gctgggtcgt gatgaggag ctttgaaaga tgcaaagggc acgaaggaga agcac 355

<210> 5624
<211> 331
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-E4

<400> 5624

aggtaaaatt cacgggtcga cgcacgcgtc caccacgcg tccgcggaag tgtggcaggc 60
gggagagggt attatagtta gcaatgaaag gtggacagag attagtccag cgggtaggaa 120
gattgaactc gtgcgcgtat ctttaccggc gaatattcgt tctatctagg aagtccaggg 180
gagtggccag ccaagtccgg cagccaggaa acgggagaag gcttcctttg tagtggatcc 240
cagtttggtc gttgcgtgag atgggagtga tttgtcgttt gttgttggtt attggcagac 300
actgaagtgg gtgtaggctc aactcctgat a 331

<210> 5625
<211> 435
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-F11

<400> 5625

ccggctcgac ccacgcgtaa gggcatgcag ctttgttact ccgcttctct acaacaacaa 60
caacaactcc tatgttccact ccaggctgaa taagaacgtc gccactccaa agtttaactg 120
cacacataat aaagtctgtg ttgtcagttg ctccaaagat cccaccagtc ggaatacaac 180
tcgaaggga gcaattggaa cactgttttc tactgctgca ttgagtatta ctattccctt 240
gttacttgcc gagaaaccaa ctgtggacaa gccagaacaa ctcagaaagg atgttgagtc 300
tctcaaatac gacgaagagc tcattcttgaa tccagaccct gccgaaaaag atcctcttag 360
gtatcagcct ccgccaaagg aacctgaata tcgcaaacaa gaaaaagagc ttatcaagtc 420
cgacgaagaa aaata 435

<210> 5626

<211> 250

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-F2

<400> 5626

gtccagaatt cacgggtcga cgcacgcgtc cagggatttg ttgcgaagag gttcgggtgca 60
gatgttgct cgtgggtccg ggaggatact gcgacgcata ttatcagcgg gcgactaatt 120
atgaagacac ggataacaat ccgcattcga gtcgttcgtg aattcagttt gttggtaggc 180
cttcagaatt ttcctgatgt tagtagcttt tcggatcgaa gaaagcataa taaaatgatt 240
tcctacagga 250

<210> 5627

<211> 327

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-071-Q1-E1-H3

<400> 5627

attcaagggt cgacggacgc gtccgaccac gcgtccggag aggggtgcgtg ctcccgctctc 60
cacttcccggt cgcttaggtc cgatggtagg agcgggtata agtggagcaa cgctgtataa 120

ccatgtggat ggagttactt cttttttcaa ggaactatct agggccgcca tgtatagcct 180
gacgaagcca aacaaagcaa acgtggcttc gtctgggtcaa ggcgactctc aagaactaca 240
gtcgttggcg gagcaaatta ggcgcctttc aagagaagta tcgaggtccc gtgcagcagt 300
tcaagaaaag tcttcgagac aacctct 327

<210> 5628
<211> 425
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-072-Q1-E1-A10
<400> 5628

ggtaccggtt acgaattccc ggctcgaccc acgcgtacgc ggacgcgtgg gcaagtagag 60
gatttatttg aacaaaatgg aatccagaat aagcgtgtaa gagaattcat tttagaaaat 120
ttaaccacgg atgatgttca tcctaagcac tttaaatggc gcgtgaacgt ttctgcttta 180
ttgaattcta tgaatagaat actcgaattt cctgtgaaag aagggaaaac atactctcgc 240
ccgacgctat ttatccgagg agaaagatca atttatgtta tgaatccgtc cgctgaaaag 300
gctattcgga cttttttccc aaaagcagtc attgaaacaa ttgaaggagc aggacactgg 360
ttaaccgttg aggcaccaga aaaattttgt gcagttgtga acagtttcct tcataactca 420
actga 425

<210> 5629
<211> 304
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-072-Q1-E1-A2
<400> 5629

agcccacgcg tccgcccacg cgtccgcccc cgcgctccgga atatacgaca gttttgctgt 60
taagaagcag ctgctgaacc tttcatccat gatagcatca cagcttttgt tagtagacga 120
aatacttcga gctgggagag atgttcgttc aaaatcaggc agtagtcaat aaagctatcc 180
attcttcgta aaaaaaaaaa agtaaaaaaaaa aaaaaagaaa caaataaaaa tcagatgaaa 240
aaaaaaaaag aaataaaagg gaggacgac aagaggatgg aagcttactt gcgcgtgcat 300

<210> 5630
<211> 433
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-A7

<400> 5630

ggtaccaggt tgggaattcc cggcctcgac ccacgcgtac gccacgcgt cgcgccacgc 60
gtccgcccac ggcgtccggca tttctgaaga agagttggat ttgtgggcac aattaccaa 120
ttcaattctt gtatctggag acttggaatg gaacttggat ggcctacttg aaatgatgtg 180
ggagaaactc aacttgattc gagtgtatac taaacaaaaa ggtgaacctg ccgactttga 240
agctcctgtc attttacgca atgataggaa acattgcaca gttgaagcat tttgtaataa 300
gttgcacaaa agtattatga aggagtttaa gtatgccctc gtttggggaa gtagtgtcaa 360
gttcaatcca cagaaagtag gaaaggatca tatacttcat gatgaagatg tcgttcagat 420
tgtgaaaaaa ata 433

<210> 5631
<211> 424
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-A9

<400> 5631

acgcgtccag gtatcggtta ggaattcccc gctcgaccca cgcgtacgcc cacgcgtccg 60
tccaagggtt cgagagcttt acaaacgttt tctattgatt ggaaagcact atcctgagcc 120
ttttccaagt gttaggcaga aaataaagag aggggtttcaa aaaaatgcta tcctttctga 180
gaaacagtcg atagaagaaa cacttcaacg tggggagttt gttctgaagg aagtcgaagc 240
cctcgtgcga ttgcataaat acagaacttt aaataagcgt tatggaagga ataaatatga 300
caattgagac ccaattcttc tagttctact gttaccttgg agaacaaagt ttgggaacat 360
aaagctcggc gcagaatttt gtaagtatta ttctcaaaa catgattagc gaagaaagtg 420
acta 424

<210> 5632
 <211> 294
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-072-Q1-E1-B10

 <400> 5632

 gtaccggtac ggaattcccg gctcgaccca cgcgtaaggg tgctgttagt cttcattggt 60
 gagcggatat gtctctgaca gacatcctgt attgggtgga cacagtagtt tggaacaaac 120
 gcgttgaccg tccactatct gggacttgct tcattatata tttcagagta tttcatatag 180
 cttgtgcctt ctttgggtatt gctgactaca tggagcgtca gcgcaagtac aggctgcatg 240
 aaagtgtcga caagacctac ctgcagttgc tgccaagagt tgtgttcaaa caac 294

<210> 5633
 <211> 433
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-072-Q1-E1-B11

 <400> 5633

 aggtaccggt aggggaattcc cggctcgacc cacgcgtacg cccacgcgtc cgtattgaaa 60
 atgtcaagtc gaagatacaa gacaaggaag gtattccccc agaccagcaa cgtttgattt 120
 ttgcaggtaa acagttggaa gatggctgta ctctctcaga ctacaacatt caaaaggagt 180
 ctactcttca cttgggtctta cgtctgaggg gtggaatgca gatattcgta aagactctta 240
 ctgggaagac catcactctt gaagtggagc cctcagatac tattgaaaat gtcaagtcga 300
 agatacaaga caaggaaggt attccccag accagcaacg tttgattttt gcaggtaaac 360
 agttggaaga tggtcgcact ctctcagact acaacattca aaaggagtct actcttcact 420
 tgggtgttgcg ttt 433

<210> 5634
 <211> 442
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-072-Q1-E1-B12

<400> 5634

aggtaccggt acggaattcc cggcctcgac ccacgcgtac gctcttccctt atattctttg 60
tgcttggaaca atggttgcaa agactgctct gaggcgcctc tttctctctt tccttatcgc 120
tgccgcagtt gcagccgacg tagtttcaga ggagagatgg ggatatgctc agcaaaccga 180
acaacagcaa cagtgcacaac aagtatgtaa acagtatgca tactatcaga gtccagtcctg 240
cacttccgta accacacaga gcccatactg gacccaatgc tcgaagactg tgcaaacctt 300
tgtccaagc cagtgcagta cttataccca atctcctaca tggacctatt gcagcaccta 360
caccaccact agcgtaccat ctcaatgcag caaggccgtg actacctata ctcaaacctg 420
ctgtgcttat gcccaacaaa ct 442

<210> 5635

<211> 408

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-B9

<400> 5635

ggtagcgggtt aggaattccc ggctcgaccc acgcgtacgc aacaacaaag cgcggtacga 60
ctgcaagatt cgtctccaga taagcttgta aaagaacagg aagatagttt aagacgaaag 120
tacggtaact tgccggacaa aaggcacctt ctccagcaac gactcaaggc aaaccacatg 180
cacgaacgaa aattttttga ctctgcagac gcaactttgg ccaaacaagg aaaggaattg 240
gccgaagaag ttggcgtgga acatgcctac ccaacctcgg aggatgagtg ctgagacgct 300
agttcacgtt caagtggcag ctctctaga aacctcaga atttgactaa gcatcaacaa 360
cacttggaag ttggtcctac taaagcaaat ccggataccg aagcctct 408

<210> 5636

<211> 427

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-C10

<400> 5636

taccggttag gaattcccgg ctcgaccac gcgtacgcca atgtggacgt tgtgggcttt 60

gcttcagaga agcgaccatc gcggagtgaa gactgctcaa cacatccttt ctttgtttaa 120
gaactctcaa aaacctttta ggagcaggaa tatatctaca gttgcctgcc agccactttt 180
tggttccctt tcttctgtcc tagtttcttc tcggcgagct gtctcggcgc gatcgaactt 240
gttctcgggtg agatgggttg ccgatctgcc ttcgtatagc atcctaaaga tgccttcctt 300
gtctccaact atgacacaag gcaatatcat tgactggaaa aagaaagaac gtgataagct 360
gtcacctgct gatgtgattg cacatattga gacagacata gctacaatgg gatgttgagt 420
gccaaaga 427

<210> 5637
<211> 408
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-072-Q1-E1-C11
<400> 5637

taccggttag gaattcccg ctcgaccac gcgtacgggg cgatattggt tggatgctg 60
ttcgttttgc tctgagtttt gtgggatatg ataccaaagt atcttcgta tatgcgactg 120
cctctaagac acacacaggt gcccttgaag attgttgtgg cgttattcat ttgcaactg 180
gacagacggt acacttcgat tgtggtttta cttgtggatt tcgtcagtgg ggagagtgtg 240
ttggtgaaag aggaacagtt actgtggacg actttatagt tccatttact tgtggtggtt 300
ctttcgttcc aagagataag agcaaataca acccgaacct caagtttcga atcaacaaat 360
tggctgttga gaaagataac aaattggaga tgattgatcc tgtcatac 408

<210> 5638
<211> 442
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-072-Q1-E1-C12
<400> 5638

aggtaccggt acggaattcc cggctcgacc cacgcgtacg ggaatagaca gtatgagagt 60
cgatggaaat gatctctggg cggatatatt ctcggtaaag gaagcaaagc aacgtatttt 120
ggaaaccggt cggccacttt tattggagtt gcttacttat cgaggaggac atcacagcac 180

cagcgatgac tcttctcgat atcgccaaaa aacagagatt gaaatgtatt ccgagcgttt 240
 gagtccctttg cgtcgaatga aacgggtttt agagtttcga aatcgttgga atgaagaaat 300
 ggatcagagt tatgtggaag agcaaagaag agaattgttg agtgctttgg aagaagcaga 360
 aaaggctccc aaggcacctt tggaagatct cttcaacgat gtgtacgatg agttgactcc 420
 tcatttaāaa caacanaaga cg 442

<210> 5639
 <211> 442
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-072-Q1-E1-C6

<400> 5639
 ggtaccggtc aggaattccc ggctcgaccc acgcgtacgg acgacatgcc aaagaacaaa 60
 ggaaaaggag ggaagaatcg tcgtcgagga aagaacgaca atgaagaaga aaagcgggaa 120
 ctttgataaa agaagagggc caagaatatg cgcaagtacg tcgcatgttg ggaaacggac 180
 ggtgtgaagc cttatgtttc gacgggtactc gaaggctatg ccatattcga gggaagatga 240
 gaaagaaggt ttggattaat gccggagata ttgttttaat tggcttgaga gactatcaag 300
 acgaaaaagc cgatattata ctaaagtata atccagatga agctagagca ttgaagtctc 360
 aaggagaaat tccagacacc acgaaaatca acgaagaaga gggatgaagaa gganggggaag 420
 ttacgtttga tttcgatgat gt 442

<210> 5640
 <211> 413
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-072-Q1-E1-C9

<400> 5640
 aggtaccggt acggaattcc cggctcgacc cacgcgtacg cccacgcgtc cgcccacgcg 60
 tccgacaagc tatcgataga gtccatcgaa ttggacaaac aaaaacggtt attgtaaaga 120
 gaatgatagt tgcaaacagc atcgaagaga atctcttaaa agttcaagaa aagaagaaat 180

tggttgccga ttccacgttg ggctcaacag aagtgtcgaa acaaagcaga caaattactg 240
 tcgaagattt gacgatgctt tttcaggact gaatgcacag cttgtaaaag gcctaattgc 300
 tgtcggatag tatggagttc gatcgcaacg acaccgtgaa tattgttttg gttgcgtgca 360
 attctgtaac attcttctta acttgctctt aaagcgaata gtttgcgttg cgt 413

<210> 5641
 <211> 118
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-072-Q1-E1-D1

<400> 5641
 ccgggtcgac ncacgcgtca gaattgaagg ggtccacgtc ggcgcaagtc atttccattc 60
 tcgcccgtt ttttcccacg acagctattg tctaccaagt tggcttggtg tcccgttg 118

<210> 5642
 <211> 377
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-072-Q1-E1-D10
 <400> 5642

taccggttag gaattccggg ctcgaccac gcgtacgaaa ggaaaggaga gaaagaggaa 60
 agggatgaaa tgcagagatc tctagagaaa ggcaagaaag aaaagaaagg aagacacagt 120
 aaatgaggcg agaaagcata ggaggtgaaa cggattagga acccgtgtag tctatgcagt 180
 aaaagaaaga atgagtaaga aaaaaggag tcattccacc aggggagtaa aggcgcaaga 240
 aagaaacca aagcaattga cgggaatcgg aaaaaggggt ggatcacgta aattaatccg 300
 atataaaccg agaaccttac ctctccaaga atgtgttgca cggctgtcga tagaacgtgc 360
 tgtaattctg agagaac 377

<210> 5643
 <211> 414
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-072-Q1-E1-D11

<400> 5643

ggtaccggtt aggaattccg ggctcgaccc acgcgtacgc agcgaaacag caataactgt 60
gaaaatgcag taaactagca gtaggacgga aagaccccat aattcttgac tagataggtt 120
tagggaggag agagaatcat gaagtagagg aggtggggta agagatgaaa gaccactgca 180
tgaggataag gaatctaact gagtaaggaa aataagctta agctagtttg gctggggaag 240
taaagcctaa gaaagagtaa attaggcaag caaaaacacg tgccagcagc agcggtaaaa 300
cgtgtgtagc aagcgtagag cagaagaact ggggtgtaaag gtcgagtagt agagtaagt 360
taaaagggaag aggaaaggag agaaagagga aacggatgaa atgcagagat ctct 414

<210> 5644

<211> 407

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-D5

<400> 5644

ggtaccaggt agggaattcc cggctcgacc cacgcgtacg cccacgcgtc cgcggaacgca 60
tgggcgaact ttggtgacga cgtgtttcat ttataaggtg cataataaaa tatcattctt 120
taatggcaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 180
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 240
aaaaataaaa aaaaaaacga ggcgacgccc aaaaggttca aacctaatta aagctgttaa 300
gtaactgaaa atccctacaa atctgtaacc aaaattgaat ttaggtgaaa ctttttaaaa 360
aattctaaat gggaaaaaac ctggatttac aaaatttaac ccccttg 407

<210> 5645

<211> 411

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-D8

<400> 5645

ggtacctagt aaggaattcc cggctcgacc cacgcgtacg caaacgtcta tgggcaacgg 60
cacgagatgg agtcacaaat atacctgttt cggtggttta taaaaggat ttatttcgtc 120

aagatggaac atcgccctcta ttattggaag gatatggtgc ttatgaaata agcaatgacc 180
ctagattcga tcctgggttta tgtagtctgt tggatcgagg tggtgtattt gcagtggcac 240
atgtacgagg tggaggagaa ttgggcagag attggtatga acaaggaaaa tatttgaata 300
agaagaatac atttaccgac tttttggatg tttgtgatta tttgttgcaa gagaaatact 360
cgagttttgg tcgagttgct attatgggaa cgagtgcctgg tggattgttg a 411

<210> 5646
<211> 327
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-072-Q1-E1-D9
<400> 5646

gtaccggtac ggaattcccg gctcgacca cgcgtacggg ttggtgacaa cgacaggttt 60
cgacgtcgac gatggtatgt gtgtttgtgt gtgtcctaaa caaatcaaag atatcaagga 120
atttctgctt ttggtccgca gggaggatgc gagagccatc acaataaaga aagggaagac 180
caacacgaaa ttcaaagtcc gttgcagcag atatttgtat actttggtag tgaaagaaaa 240
ggacaaggcg aacaacttgg aacacagtca tccaccaggt ttgactttga aaaagattga 300
ttagaaataa actctatcgt tgctggtt 327

<210> 5647
<211> 345
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-072-Q1-E1-E1
<400> 5647

ccggtcagga attcncgggt cgccccacgc gtccgcagaa tttttttcta acacatcagc 60
ccaaattggc aattggcgcc atttcgatag aagatcgtct ccattgtaag agtttctaac 120
caacaatcat aatacaagag atacacgtgg tcaccatctt tagcagattt cagcatatgg 180
aaacatgggt tggtatgact actgcatact ttctttggag acaatgattc gatatccgct 240
tgtgccattt ggctgcctct ctatgaacga cgcctgggaa gagcgatatg tctcgaatgt 300

tgaaaaaaaag atgaatgccg ttggtcaagg aattgccatg aaaaa 345

<210> 5648
<211> 378
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-E10

<400> 5648

aattccgggc tcgaccacg cgtacggact gcgcttcttt tcaatccttt caaatattga 60
gcttggacca tcgaaatcct cggtatatatt ttgaataaaa aacgagaact aatatggaaa 120
aatatcgaag ggttgagcga gccaaaagtc cgggccagac tccgccgaat caagtacgaa 180
taactgcggc gggcaaagt ccagcctatg tggactatgc agtcaagttg cttcaagagg 240
ataatggcac cgtggaaatc gtcgggctgg gtaatgccat caataaggct atcactgtag 300
cagaaatatt gaagcgaaaa gtccccaagt tggagcaagt aacaaatctt agttcgggtga 360
ctattgaata ccgctggg 378

<210> 5649
<211> 425
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-E11

<400> 5649

taccggtagg gaattcccgg ctcgaccac gcgtacggga aagagttcag aagagaaacg 60
gacactgtta gagagatgtg cacaaacgtg tttaaactcc aagttgattg caggacagaa 120
ggaaatgttt gccaaaatgg ttgtagatgc tgtctcttcg ttggatcctg gaatggatat 180
atctttgatt ggtataaaaa aggtgcaggg tggatcactt tcagactctc aactagtaca 240
gggagtagct ttcaagaaga cattttctta tgcaggattc gaacagcagc ccaagaaatt 300
tatcaatccg aagatagttg ttttgaacgt ggagttggaa ctcaagtcag agaaggagaa 360
tgcagaagtc cgagtggaga cgacgcagga ctaccaagga attgtcgatg ccgagtggga 420
acata 425

<210> 5650

<211> 360
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-072-Q1-E1-E12

 <400> 5650

 aggtaccggt caggaattcc cggctcgacc cacgcgtacg gggaacctta ataaagttct 60
 taagagacag ctgtcgtttt agtaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaacagggc 120
 agacacacaa aaaagcagga cggttgcgta tgctggatat ccgacttcct tattccttct 180
 tgcgtgttcc tgactcttca ttcacgggcc ctctttttac ttcacgctc ctcgttttac 240
 actgtcgtga cgggtcttaa cctgctttta cccaagttca ccttcgtgaa gtagatcccc 300
 ctttcgccat gctggcatcg tatccccgtc gcactaattg atcagccttc ctagcacttg 360

<210> 5651
 <211> 421
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-072-Q1-E1-E6

 <400> 5651

 aattcccggc tcgaccacg cgtacgaccg aatcagggta agaggtagag gagcaagaag 60
 agaagagaga atgctgggtg gagtagcgaa acaagagaag ggaagtaaaa ggtaagaaag 120
 aggaaaggtt tacgagagaa ggaagtagaa agaagagagt gtaaggcggc gtcataatag 180
 aaatccgaaa ggagtagaag aaaagagaga gaagaaagaa aagaagagaa aagccgtact 240
 gaagaccgac acaggtactc gaggagaaag gagaccctaa ttaaggtgag agaatggacg 300
 ataaggaact aggcaaaagg atatggtatc tgcggtagaa catatgaaag aagcagcacc 360
 gactgttttag caaaaacaca gcactctgca aaaaagagac aatgtaaagt aaagagtgtg 420
 c 421

<210> 5652
 <211> 394
 <212> DNA
 <213> Cyanidium caldarium

 <223> Clone ID: LIB190-072-Q1-E1-E7

<400> 5652

aattcccggc tgcaccacg cgtacggaag aaccttggac ctatttggtg gagcaaattg 60

cggaggcaga aaggatagag ttgcaactgtg gttggtccaa ggaggatcga gaaaaccttc 120

ttgttgcgtt gaaagagaca aaacaattag atgcaacagt cctttcgcaa catgtgaaaa 180

gcaaaagccc tgaggaaata accgaatata taaaagtatt aaaggacaga cttgggaaga 240

aagatgacga aggaatgcag ccagatgtat ctttttatgc tgctttgcta tctttggagt 300

tgtatcatag tggagccatt tcccctggtg gtttgttttc taaaaaactg gaacatatgg 360

acaagaacac ggttttccac gattccgtgt ctca 394

<210> 5653

<211> 353

<212> DNA

<213> *Cyanidium caldarium*

<223> Clone ID: LIB190-072-Q1-E1-F10

<400> 5653

taccggtacg gaattcccgg ctgcaccac gcgtacgccc acgcgtccgg gagacgttgg 60

ctggtatgtg gttcgattta ttctatcatt tgttggtatc gatcgtaaag ttatttcggt 120

gtatgcagtt ggcaatgaaa cggaaggagg atcgatggac gattgcgcag gagttgtgga 180

gtttgaagag aacattactg cacactttga ctgtggattc acaagtgggt atagacaatg 240

gggtgaatgt ttaggtacac ttggaatgtt gagagtggaa cgttttcaag gagctcccg 300

tcctaagaat acagaagaga aggatcccaa attgcacgtc gaatttcate aac 353

<210> 5654

<211> 344

<212> DNA

<213> *Cyanidium caldarium*

<223> unsure at all n locations

<223> Clone ID: LIB190-072-Q1-E1-F11

<400> 5654

cattcncggc tgcaccacg cgtaagccca cgcctccggc atacgttgcc tcgtacatag 60

ttctccctat tctaccattt catatgcata ccatcgtaa cttatttccg tgtacgcagt 120

tgacaacgaa ggggaacgag gatccatgga ccattgcgca cgagttctcc actttcacca 180

caacatcact ccacactttc actgtccatt cacacctcgt tatacgacaa tggcgtcaat 240
gtctacgtac acttcccatg ttgccactcg cccctcttca ccgacctccc gttcctaaca 300
ctacagcaga caccgatccc aattttctct tccactgtcc tcaa 344

<210> 5655
<211> 444
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-F12

<400> 5655

ggtagcggtt aggaattccc ggctcgaccc acgcgtacgc ccacgcgtcc gcgcaaagat 60
agatggacag atctccttgg aggctgggtt cgtttcttat taaagggtgct gcaggaacag 120
tacgttcctc cctccattct gatgttggga acagaacttt acagagattc ggacttgttt 180
caagtaaadc caaaaagtcc agtggcagac acatgtctcc tgcagagtcg caccttagtc 240
tatgtttgaa acacgtattc ttacagccac gtgtacggtt gcgtagtatt atgtttatcc 300
actttttatg tactcccttt gtattactgc ttctttttgc ctggtattta ccgagttctc 360
cagaattttg ggtatacttt gcactgcatt ccgctcgagc ctggttgtgg attttaaaaa 420
acttgtgctt tccagatttc atat 444

<210> 5656
<211> 209
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-F3

<400> 5656

cgaccacgc gtaagcccac gcgtccgcgg acgcgtgggc acagattccg ttgtgcagaa 60
tgacgccgtg gatagcactt cagacatgta tgatgaattg acctatttag ttcaaaattg 120
cgaagttact gaaccgaaga acaaattgaa tggcttctta ctttatattt ggtaaattgt 180
gaaaaatata ttttctttta ttcataatg 209

<210> 5657
<211> 420

<212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-072-Q1-E1-F6
 <400> 5657
 aattccccggg tcgacccacg cgtacggcaa attggcagag ttttgtcaaa aagtaccagg 60
 actccgtgga ctgtacaact ttttagctcg cgtgcatata agaggtgtag aaagagagtt 120
 gcgcaagtac ggactgagat acgatgacct tctcaacgag caagatccgg acgtgaaaaa 180
 agctcttgaa atgctcccg aacatgagaa gcagttgaga gccaaagcgtt ttattcgagc 240
 gtttgatttg tcgatgaaga agactcactt acccgatgaa atagcacaaa aggaagatat 300
 ttggaaccca tacttgagaa gtcgcatcga gctgattcgt aaagaaaagc atcgaaatga 360
 gacctacaaa taaacaacaa taaaagtaaa agtttttccc ctttggtttg ggggggcggt 420

<210> 5658
 <211> 398
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-072-Q1-E1-F7
 <400> 5658
 ggtaccagtc aggaatgccc ggctcgaccc acgagtcagg cgcagactgg tagaaacaat 60
 tgctcctaag cgcgatgata tagcaactcc aaaaaatatg gaaccgaaag cgcttagcat 120
 gttttgtact ctactgttgt cttccatgct cgagtatcgt ttactatta cggagactat 180
 ctacggtggt tctgttattg gagataactc gaaatatttt ttagatggtg ccaataactt 240
 tggcttttat tatgagtatt gcacagggtg aatattatca gacgacaaa tggaagaaga 300
 cgaaatggac gagatgaacg agggaaatgt tcaaatgctc aagttaatat ttccgaaaat 360
 tgttttcgaa ggtattaaga aagagtatgt ggactacc 398

<210> 5659
 <211> 421
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-072-Q1-E1-F8
 <400> 5659

tacaagtcag gaattcccgg ctcgacccac gcgtacggac tttgtgtgca gtgttgacca 60
aacagggact cgacagatat ggcttccggg gttgcagtag acgatacatg cgaaaggag 120
ttcactgttc ttgtgagaag cacgccaaga aagtaccgtg ctattatattt caaactcact 180
gatgacctgt cttctgtatg tgtggaaaag acgcttcccg cagccaacat aaccaagtgc 240
agtgcacaag aagactggaa aaagtttgtg actgaattgc cccaaaacga ttgtcgtttt 300
gcagtatatg actttgagta tcaaacttct gaaggtgttt ccaaaaatag aataatattc 360
attcttttgt cacctgaaag tgcgaagata aagtcaaaga tgttgtaatc ttcattccaga 420
g 421

<210> 5660
<211> 317
<212> DNA
<213> Cyanidium caldarium
<223> unsure at all n locations
<223> Clone ID: LIB190-072-Q1-E1-G1
<400> 5660

cggtcaggaa ttncggctc gaccacgggt cagagtttgg ttgttttctt ggtagcagtt 60
gtacattcaa catcatcaaa tgccaaaggg aggaaagaaa gattcttcaa agaaagaagc 120
cacaagtaaa cctgcagcag cagatgctac aaagacgaca gaaaagtctg gtccggaagc 180
caagttgaag ggaactgggtg caaagaaaca ataaaaagtt gactatgcat gtgcagtcct 240
gttatgtttt gtgagttctg tttgatagtt tccagctatt cttttggtag tgaataaaga 300
gaaaattttt tatattt 317

<210> 5661
<211> 420
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-072-Q1-E1-G10
<400> 5661

aattccgggc tcgaccacg cgtacgagaa agtaaggaat aagaacgaag aactacgaca 60
aaaacgccaa agattagaag agttggaagc tcagaagaga gctgtagaag ccatgttggc 120

ccgaaatgct tcgagttcag cttctgaact tcagccagaa agctgcatac atcttccttt 180
tattatcggt tctaccagtg cagacacttc tatcgatgtg gaaatggaag aaaatgcgga 240
agaagtttta ttcactttta atagaccttt tgaaatatac gatgaccaag tcattttgca 300
aggaatattt cgaaacacaa atgtttccaa cagaagagac gaacatgaaa acgtatcggt 360
ttctgagaag caagcatatt caagtaattc tagacagtcc agtgagccaa gtcaacattc 420

<210> 5662
<211> 437
<212> DNA
<213> Cyanidium caldarium

<223> unsure at all n locations
<223> Clone ID: LIB190-072-Q1-E1-G11

<400> 5662

gtaccggtag ggaattcccg gctcgaccca cgcgtacgcy gacgcgtggg ctagcattac 60
tgcaagtggg ggttgagttg cagagagtgc aactgtagcg agcatagatt tatctcccca 120
ctctgcggtg aaaatgatgg agaagacttg aagtatttga cccaacgcaa tatttccaaa 180
agcaccatat tgagattcgg agcttgatgc atattcctta ctgtaaaaat catcctggct 240
ttggtttact tgggacggag tttccttcag atatgcacgt atattatcga ccccgaaacca 300
aaacaacaaa gcagttgcaa tataatcatc gataggaagg gtatgtaatg agctgggaaa 360
tgcatgaaac aattgtccaa tcagtacgga aagaatcgtc ataacaagaa gtgccgtgag 420
agttgcaaca nacacta 437

<210> 5663
<211> 429
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-G12

<400> 5663

taccgggttag gaattcccg ctcgacccac gcgtacggtt ttgggggttg tttgggtgaa 60
gatggcgcac tatcaacatt accgagctag tacagcgggt atagcttttg gagaagcact 120
ttctgaactc aaggaacaga agctctttac ggaagcggaa gaagatgtga tttggaggaa 180
gtttgaccgt gccatgacag aagcccttgc gtccaacgtt gtggatacac accttacgtt 240

gaaagtaagt ccttgagcct ttcttagcag cctttaacct tgcttagggg agtcttcac 300
 actatcgatt ctgtgataat gtgtggcaat tcttcgtgaa agacgcacaa gtgaaatttg 360
 acaaaagggtc ggattttact cccgctgggt atctgaaagt agttgcttgt gattatgtaa 420
 agccaacca 429

<210> 5664
 <211> 449
 <212> DNA
 <213> Cyanidium caldarium
 <223> unsure at all n locations
 <223> Clone ID: LIB190-072-Q1-E1-G3
 <400> 5664

taccggtcag cgaattcccg gctcgacca cgcgtacggt gatgaggaca agtcggtggt 60
 cgcgagctgc tttatctttt ttgatttcta ccgcggttac aaagtcttat catcctcata 120
 ataacacaca cgattatgtc tccttgtatt tcttgccatt gtatcgcaac tgggttcaac 180
 gcgttgaat tcatagcgtt ccttttgtac tagctaata tactgggtgac tccttgaaaa 240
 aacaagaaaa ggctgataaa gttcaaaaaga agacaaagaa gaaaggctcc acaacggatt 300
 ccaaaaagggt aaaaaaggcc agcctcgagt cgcagccgga agatgggtgcg gaaacaaagg 360
 ttgaacctcc tccaaaagag aagaagttta agaanaagaa ggatcctgaa acagcgatac 420
 ctgaatatgc catccaaagc ttttttgag 449

<210> 5665
 <211> 257
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-072-Q1-E1-G4
 <400> 5665

accggttagg gattcccggt tcgccccacg cgtccggaca cgcgtccgga tcgatgcaca 60
 cacaggaaag cagtacaaca agacagagaa aggaggaacc tgagtatcac gacgacaaga 120
 gggagtacat gaggacagac acgatcaggg aactaacagt aagagaacga ctaatgtgaa 180
 tgacagcagg aacgtatttg aacacgagag tgtaacgcgc gtaccttttg catcatgtcc 240

cagcgagtga acgagga

257

<210> 5666
<211> 418
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-G5

<400> 5666

cgcgccaggt accagttagg aatgcccggc tcgaccacg agtacggta gttcttccga 60
tgaattccgc ccttttgtaa gaagattacc tgaattcaaa ttctggcttt ctgccactcg 120
agctaccgtc cttgctttgt ttgctaccgc gtttcgattc ctggacatac cgtattttg 180
gcctatcttg gttatttact tcattctgct ttttggtgca actatgagaa ggcagattgc 240
ggatatgatt caataccgtt atttacctt taacattggc aaaaagaaat actcaagttc 300
ttccaagttt gtggcaaggc gacaagaagc ccatgataac gatgctgttg cgttgaaaag 360
ttccgcaaac gtcaaaactt caacttcagt ggaacccccg aggaatagtg cgactccg 418

<210> 5667
<211> 378
<212> DNA
<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-G6

<400> 5667

aggtactagt ctggaattcc cggctcgacc cagcgctacg cccaagcatc cggaaagagg 60
cagctacggg aaagcagtaa gacaagaaag acacaggaat caactgagta acaggaataa 120
ggaagggagt aaatcatgaa ataaagatca aggaattaag aataagagaa cgagtaatgt 180
ggatgaaagc acgaaagtat ttgaagaaga tagtgtaaag cacgtacctt ttgcaaaatg 240
tcccatcgag tgaaatagga tgcacaaaca aaggcataga agtagtcagg taacacccgc 300
atctatttga tcttatgctg tccattcaaa gtagggctga accactatct gtgagaaaag 360
atttgggaga gatcgcat 378

<210> 5668
<211> 421
<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-G7

<400> 5668

gaatgcccgg ctcgaccac gagtcagcaa gatggaaagg aacaaaagga aactagtctg 60

aaagcagaaa aacagaaaca acgttgcgaa agactaaaga atcgagcgct gcagagagat 120

aagagagtat tgtttatggt ggaacaaata aggaaagccg gctgttatct ccctgaggag 180

cgcattcttt gtcaacattg tgaggctgct gtaggaggtg gttttcaaga cgatggtagc 240

gtcgtccttt gttcgaatca cttactatct caggatcacg ctaatgtcac gcttggtcac 300

gagttggtac acgcttttga tcagtgtcga gcacacgtga actggtcaga ctgtacccat 360

cacgcttgta gtgaaattcg tgcgggttta ttaagtgggt actgtgattg gaaacgagag 420

t 421

<210> 5669

<211> 114

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-H1

<400> 5669

aggtgaaaaa caacaaaata acacaaaaca acaaccaaaa caaaaaaaaaa aaaaaaaaaa 60

aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaga 114

<210> 5670

<211> 455

<212> DNA

<213> Cyanidium caldarium

<223> Clone ID: LIB190-072-Q1-E1-H10

<400> 5670

acgccgacag gtaccgggta ggaattccgg gctcgacca cgcgtacgcc ttgtgtgagt 60

gttcctggag tgaagacgaa atatgagaat gtgaatgtcg ttacagttcg tgagaataca 120

gaaggagaat acagcgggtt ggaacacgtg gtgtatccag gtgtggtaga aatgatcaaa 180

ttgatcacga gagaagcttc gttgcgcgtt gctagatatg cttttgaata tgcgaagaac 240

aatcaaagaa aaatggtaac tgcagttcat aaagcaacgg tgatgaaacg agcagatggg 300
ctcttttttag aatgttgctg agaagtggct caagaatattc cgaatattca atatgaagaa 360
ttgttgatcg atacatgtgc tgctcgcttg gtacagaatc cttcgcgttt ggatgtcatg 420
gtgatgccca atttatatgg cgatatactc agtga 455

<210> 5671
<211> 312
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-072-Q1-E1-H12
<400> 5671

cgaccacgc gtacggggcc aacgaacccg tcggacatac gtttttcata tcaactatta 60
gatggcttga agaaagctgt ctatataact gcgacagcac cctttttgca ctatcaccag 120
gaaatacatg gaaattcttt ctgcactatc aatatatggg cagtgccatt acaagccaca 180
aactaccag ttcaccacat gattatgatg ccacatgggt tactttccaa aaccttgtgg 240
aactgccgt gccaatccac ccgtttagg ttgtatccag acatgcaggt tcagcatggg 300
tccaactcat tt 312

<210> 5672
<211> 354
<212> DNA
<213> Cyanidium caldarium
<223> Clone ID: LIB190-072-Q1-E1-H4
<400> 5672

cacgcgtcag gaaaaatagt agagaagaaa tcgatgaaag tgaaagcgag taaaagatga 60
ggtatagaga atggcgggtcc taactgtaag gatccaaagg tagcgaagta aatagacgtt 120
tgaaaggcgt ccagtatgaa aggagaaacg agtgtaccac tgtctagtcg tccaactcag 180
cgaaacagca ataactgtga aaatgcagta aactagcagt aggacggaaa gaccccataa 240
ttcttgacta gataggttta gggaggagag agaatcatga agtagaggag gtggggtaag 300
agatgaaaga ccactgcatg aggataagga atctaactga gtaaggaaaa taag 354

<210> 5673

<211> 363
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-072-Q1-E1-H6
 <400> 5673

```

cggctcgacc cacacgtacg atcttattga ttggctgatt ggcgcaactc gttgtttggc   60
tttctttttg gaaacaaaag acagtcgtct ctggtaaaat ggcaagtaga gtaccttgga  120
ataactttcg tatgcctttt ggtgggtggtg gcggtggtgg tcctagtggc cctgcggttc  180
gagttgcagg tttggctatt gcaggtatcg ctacagctgc cattggttat aaatatggtt  240
tatacaacgt ggacggtggt catcgagcgg ttattttcaa caagtttacg ggagtcagac  300
caaaagttta tggagaagga actcaccttc gaataccatt ctttgacgtt cccatcattt  360
atg                                                                    363
  
```

<210> 5674
 <211> 417
 <212> DNA
 <213> Cyanidium caldarium
 <223> Clone ID: LIB190-072-Q1-E1-H7
 <400> 5674

```

aattcccggc tcgaccacg cgtacggtga gtcgtggtgc tgtcttagca aacttttcct   60
cttgtgaacg tggctataa aagtcccttt ggaaacttta aaactgggta tattcagtag  120
atattgtaaa aaagtagctc tcgagccacc gaccaaccag ccaagcaatt catatcgaga  180
ctgtctgcag aactacgaag atgccaacca tgtttgttgt gacgcattgg ttaccaagc  240
tttttgagga gtccttgcaa agaagaaaacg tttgttcgcc gatgaaattg aagagaaagt  300
tgtattttctg taagggttcg tttcgtgcc agcgtatcct cgcaaccatg gaacaaacga  360
gtacgacaga gttgcgcccc cacgtaaaact ggtagaaaaa tcgttggggtt tggcagg    417
  
```

Combined Declaration and Power of Attorney for Patent Application

Docket Number: 38-21(15749)B

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am an original, first and joint inventor of the subject matter that is claimed and for which a patent is sought on the invention entitled Nucleic Acid Sequences from Cyanidium caldarium and Uses thereof, the specification of which is filed herewith unless the following box is checked:

☐ was filed on _____;
as United States Application Number _____; and
was amended on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application, which designated at least one country other than the United States listed below, and have also identified below any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

| Prior Foreign Application(s) | | | Priority | Claimed |
|------------------------------|-----------|------------------------|------------------------------|-----------------------------|
| | | | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| Application No.) | (Country) | (Day/Month/Year Filed) | | |
| (Application No.) | (Country) | (Day/Month/Year Filed) | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

1 I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below.

| | | |
|---------------------|-------------------|----------------|
| 2 <u>60/128,439</u> | <u>04/06/1999</u> | <u>Pending</u> |
| (Application No.) | (Filing Date) | (Status) |

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or under § 365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56 that became available between the filing date of the prior application and the national or PCT international filing date of this application.

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Lawrence M. Lavin, Jr.
Dennis R. Hoerner, Jr.
Richard H. Shear

Reg. No. 30,768
Reg. No. 30,914
Reg. No. 26,583

Robert A. Auchter, Reg. No. 38,069
Jeffrey I. Auerbach, Reg. No. 32,680
Melvin L. Barnes, Jr. Reg. No. 38,375
William D. Belanger, Reg. No. 40,509
Michael J. Bell, Reg. No. 39,604
John A. Bendrick, Reg. No. 341,612
Celine T. Callahan, Reg. No. 34,301
Cono A. Carrano, Reg. No. 39,623
June E. Cohan, Reg. No. 43,741
Joseph V. Colaianni, Reg. No. 39,948
Chris Comuntzis, Reg. No. 31,097
Mary S. Consalvi, Reg. No. 32,212
Jenny Wei-Chun Chen, Reg. No. 44,604
Ben M. Davidson, Reg. No. 38,424
Ross E. Davidson, Reg. No. 41,698
James F. Davis, Reg. No. 21,072
Thomas M. Dunham, Reg. No. 39,965
Thomas C. Fiala, Reg. No. 43,610
Joel M. Freed, Reg. No. 25,101
Vernon Randall Gard, Reg. No. 33,886
Alan M. Grimaldi, Reg. No. 26,599
Sharmini Nathan Green, Reg. No. 41,410
Alexander J. Hadjis, Reg. No. 36,540
Albert P. Halluin, Reg. No. 25,227
Leslie L. Jacobs, Jr., Reg. No. 40,659
Derek J. Jardieu, Reg. No. 44,483

Christopher L. Kelley, Reg. No. 42,714
Brian S. Y. Kim, Reg. No. 41,114

Richard H. Kjeldgaard, Reg. No. 30,186
Andrew R. Kopsidas, Reg. No. 42,759
David J. Kulik, Reg. No. 36,576
Viola T. Kung, Reg. No. 41,131
Robert C. Laurenson, Reg. No. 34,206

Joseph P. Lavelle, Reg. No. 31,036
Don F. Livornese, Reg. No. 32,040
Christopher A. Mathews, Reg. No. 35,944
David R. Marsh, Reg. No. 41,408
Joseph A. Micallef, Reg. No. 39,772
Erik B. Milch, Reg. No. 42,887
Anthony D. Miller, Reg. No. 34,394
Matthew J. Moore, Reg. No. 42,012
Karen L. Nicaastro, Reg. No. 35,968
Bradley J. Olson, Reg. No. 40,750
Andrew Y. Piatnacia, Reg. No. 40,772
Timothy W. Riffe, Reg. No. 43,881
Andrea G. Reister, Reg. No. 36,253
Paul D. Roath, Reg. No. 45,045
Stephen J. Rosenman, Reg. No. 29,209
Timothy L. Scott, Reg. No. 37,931
Anthony W. Shaw, Reg. No. 30,104
J. David Smith, Reg. No. 39,839
Michael J. Songer, Reg. No. 39,841
Jennifer A. Tipsord, Reg. No. 40,205
William K. West, Reg. No. 22,057
Adam K. Whiting, Reg. No. 44,400
Robert J. Worrall, Reg. No. 37,969

Send Correspondence to:

Larry M. Lavin, Jr.
Monsanto Company
700 Chesterfield Parkway North, BB4F
St. Louis, Missouri
Facsimile: (314) 737-6047

Direct Telephone Calls to: 314-737-6670

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

| | |
|-------------------------------------|--|
| Full name of sole or first inventor | Dane K. Fisher |
| Inventor's signature | <i>Dane K. Fisher</i> Date <i>03/27/2000</i> |
| Residence | O'fallon, Missouri USA |
| Citizenship | USA |
| Post Office Address | 6504 Sprucefield Drive, O'fallon, Missouri 63366 |

| | |
|------------------------------|---|
| Full name of second inventor | Raghunath V. Lalgudi |
| Inventor's signature | Date |
| Residence | Clayton, Missouri USA |
| Citizenship | USA |
| Post Office Address | 622 Forest Court Road, #35, Clayton, Missouri 63105 |

| | |
|-----------------------------|------|
| Full name of third inventor | |
| Inventor's signature | Date |
| Residence | USA |
| Citizenship | USA |
| Post Office Address | |

Combined Declaration and Power of Attorney for Patent Application

Docket Number: 38-21(15749)B

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am an original, first and joint inventor of the subject matter that is claimed and for which a patent is sought on the invention entitled Nucleic Acid Sequences from Cyanidium caldarium and Uses thereof, the specification of which is filed herewith unless the following box is checked:

☐ was filed on __;
as United States Application Number __; and
was amended on _____ (if applicable).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56.

I hereby claim foreign priority benefits under 35 U.S.C. § 119(a)-(d) or § 365(b) of any foreign application(s) for patent or inventor's certificate, or § 365(a) of any PCT international application, which designated at least one country other than the United States listed below, and have also identified below any foreign application for patent or inventor's certificate, or PCT international application having a filing date before that of the application on which priority is claimed.

| Prior Foreign Application(s) | | | Priority Claimed |
|------------------------------|--------------------|---------------------------------|--|
| | | | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| _____ (Application No.) | _____ (Country) | _____ (Day/Month/Year Filed) | |
| _____ (Application No.) | _____ (Country) | _____ (Day/Month/Year Filed) | <input type="checkbox"/> Yes <input type="checkbox"/> No |

I hereby claim the benefit under 35 U.S.C. § 119(e) of any United States provisional application(s) listed below.

| | | |
|-------------------|-------------------|----------------|
| <u>60/128,439</u> | <u>04/06/1999</u> | <u>Pending</u> |
| (Application No.) | (Filing Date) | (Status) |

I hereby claim the benefit under 35 U.S.C. § 120 of any United States application(s), or under § 365(c) of any PCT international application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application in the manner provided by the first paragraph of 35 U.S.C. § 112, I acknowledge the duty to disclose information that is material to patentability as defined in 37 C.F.R. § 1.56 that became available between the filing date of the prior application and the national or PCT international filing date of this application.

I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

| | |
|------------------------|-----------------|
| Lawrence M. Lavin, Jr. | Reg. No. 30,768 |
| Dennis R. Hoerner, Jr. | Reg. No. 30,914 |
| Richard H. Shear | Reg. No. 26,583 |

| | |
|--|---|
| Robert A. Auchter, Reg. No. 38,069 | Richard H. Kjeldgaard, Reg. No. 30,186 |
| Jeffrey I. Auerbach, Reg. No. 32,680 | Andrew R. Kopsidas, Reg. No. 42,759 |
| Melvin L. Barnes, Jr. Reg. No. 38,375 | David J. Kulik, Reg. No. 36,576 |
| William D. Belanger, Reg. No. 40,509 | Viola T. Kung, Reg. No. 41,131 |
| Michael J. Bell, Reg. No. 39,604 | Robert C. Laurenson, Reg. No. 34,206 |
| John A. Bendrick, Reg. No. 341,612 | |
| Celine T. Callahan, Reg. No. 34,301 | |
| Cono A. Carrano, Reg. No. 39,623 | |
| June E. Cohan, Reg. No. 43,741 | Joseph P. Lavelle, Reg. No. 31,036 |
| Joseph V. Colaianni, Reg. No. 39,948 | Don F. Livornese, Reg. No. 32,040 |
| Chris Comuntzis, Reg. No. 31,097 | Christopher A. Mathews, Reg. No. 35,944 |
| Mary S. Consalvi, Reg. No. 32,212 | David R. Marsh, Reg. No. 41,408 |
| Jenny Wei-Chun Chen, Reg. No. 44,604 | Joseph A. Micallef, Reg. No. 39,772 |
| Ben M. Davidson, Reg. No. 38,424 | Erik B. Milch, Reg. No. 42,887 |
| Ross E. Davidson, Reg. No. 41,698 | Anthony D. Miller, Reg. No. 34,394 |
| James F. Davis, Reg. No. 21,072 | Matthew J. Moore, Reg. No. 42,012 |
| Thomas M. Dunham, Reg. No. 39,965 | Karen L. Nicastro, Reg. No. 35,968 |
| Thomas C. Fiala, Reg. No. 43,610 | Bradley J. Olson, Reg. No. 40,750 |
| Joel M. Freed, Reg. No. 25,101 | Andrew Y. Piatnicia, Reg. No. 40,772 |
| Vernon Randall Gard, Reg. No. 33,886 | Timothy W. Riffe, Reg. No. 43,881 |
| Alan M. Grimaldi, Reg. No. 26,599 | Andrea G. Reister, Reg. No. 36,253 |
| Sharmini Nathan Green, Reg. No. 41,410 | Paul D. Roath, Reg. No. 45,045 |
| Alexander J. Hadjis, Reg. No. 36,540 | Stephen J. Rosenman, Reg. No. 29,209 |
| Albert P. Halluin, Reg. No. 25,227 | Timothy L. Scott, Reg. No. 37,931 |
| Leslie L. Jacobs, Jr., Reg. No. 40,659 | Anthony W. Shaw, Reg. No. 30,104 |
| Derek J. Jardieu, Reg. No. 44,483 | J. David Smith, Reg. No. 39,839 |
| | Michael J. Songer, Reg. No. 39,841 |
| | Jennifer A. Tipsord, Reg. No. 40,205 |
| | William K. West, Reg. No. 22,057 |
| Christopher L. Kelley, Reg. No. 42,714 | Adam K. Whiting, Reg. No. 44,400 |
| Brian S. Y. Kim, Reg. No. 41,114 | Robert J. Worrall, Reg. No. 37,969 |

Send Correspondence to:

Larry M. Lavin, Jr.
Monsanto Company
700 Chesterfield Parkway North, BB4F
St. Louis, Missouri
Facsimile: (314) 737-6047

Direct Telephone Calls to: 314-737-6670

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

| | |
|-------------------------------------|--|
| Full name of sole or first inventor | Dane K. Fisher |
| Inventor's signature | Date |
| Residence | O'fallon, Missouri USA |
| Citizenship | USA |
| Post Office Address | 6504 Sprucefield Drive, O'fallon, Missouri 63366 |

| | |
|------------------------------|---|
| Full name of second inventor | Raghunath V. Lalgudi |
| Inventor's signature | Date 03/30/00 |
| Residence | Clayton, Missouri USA |
| Citizenship | USA INDIA Rvk-ok |
| Post Office Address | 622 Forest Court Road, #35, Clayton, Missouri 63105 |

| | |
|-----------------------------|------|
| Full name of third inventor | |
| Inventor's signature | Date |
| Residence | USA |
| Citizenship | USA |
| Post Office Address | |